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A SAGA OF
THE ST. LAWRENCE



Drawn by Thoreau MacDonal

RAFTING DOWN THE LACHINE RAPIDS

A Saga of the St. Lawrence

Timber & Shipping through three Generations

By D. D. CALVIN

*Author of "Queen's University at Kingston" and co-author
with T. R. Glover of "A Corner of Empire."*



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To the Memory of
MY FATHER AND GRANDFATHER

PREFACE

“ALL HISTORY, so far as it is not supported by contemporary evidence, is romance.” Thus Dr. Johnson, and Carlyle believed that of the true stuff of history—the lives and work of ordinary men—“the most important part is lost without recovery.”

May it not be that much of the economic history of Canada, though not yet actually lost, lies hidden in the dust-covered records of private individuals and firms? Are not these records, equally with war, politics, civil strife and constitutional development, a part of our history? Indeed—to quote Carlyle again—“the weightiest cause may be the most silent.”

This little book, then, breaks silence about a Canadian business which was not without standing in its time, nor perhaps without interest today. Always, where possible, it is “supported by contemporary evidence.” Though unfortunately much of that evidence has been “lost without recovery,” a great deal of it still exists.

My own statement and comment, where they lack touch with the actual records, are based upon having lived on Garden Island in my youth, seeing the work every day—upon trips up the Lakes on the timber vessels and down the St. Lawrence on the rafts—and upon an active part in the last years of the business, especially as the firm’s agent in Quebec.

D. D. CALVIN.

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CHAPTER I

ORIGINS

1. ATLANTIC SEABOARD

MASTS FOR the Royal Navy were the earliest British demand upon the forests of North America. From the middle of the seventeenth century the Admiralty were faced with a double problem of timber supply—they needed increasing quantities of oak for the frames and planking of their “wooden walls,” and of long straight timber for masts. English oak was plentiful, the problem in that age was to get it hauled to the coast. But there were no trees in Britain of the diameter and height needed for masts, bowsprits, topmasts and mainyards. Russian pine from Riga and other Baltic ports was the usual material; during the Dutch wars the risk to its safe delivery at the dockyards in southern England caused the Admiralty to look elsewhere for masts.

Pepys records in his *Diary*, November 27th, 1662, that he made “a bargain with Mr. Wood for his masts of New England.” On December 3rd he was busy “with Mr. Wood and our officers measuring all the morning our New

England masts," and in the following year, February 28th, he "dined with Sir W. Batten . . . being in business about a bargain of New England masts."

About 1688, agents of the Crown began marking choice white pine trees, in the New England forests, with the Broad Arrow or "crowfoot" which is still the mark of British government property. These "King's pines" were reserved for use as naval masts and spars. The same policy was pursued in Nova Scotia from 1721; in 1774 the timber growing on great tracts of land in the valley of the St. John River, in what afterwards became New Brunswick, was similarly reserved for the Navy.

From the first there was friction between Crown and colonies, especially in New England, over the "King's pines." The colonists asserted that the Broad Arrow was being cut over their lands, to which they believed they had clear title, as well as upon trees on Crown lands. The colonists' claim to ownership of the trees on their own granted lands was probably well founded, at first. But, later on, a great part of the so-called private property consisted of tracts in the wilderness taken up by the colonists purely for the timber growing on them, and not for settlement—"paper townships," they were called.

The government mark was consistently flouted by the colonial woodsmen, who cut what trees they chose despite the efforts of the Crown timber commissioners. The colonial judges and juries were often too prejudiced to convict offenders, however clear the evidence against them. James Truslow Adams has pointed out that very early in their history ". . . Americans had developed a marked tendency to obey only such laws as they chose to obey, and a disregard for law as law."¹ The colonists

¹"Our Lawless Heritage," *Atlantic Monthly*, December, 1928.

went so far, at times, as to sell masts to the Spanish government for warships building at Havana, and to the French for their privateers.

We are not here concerned with the rights and wrongs of these things. Canadians, as will be shown later, were not too law-abiding in the early days of forest exploitation. It is sufficient to point out that this difficulty about masts was a part of the general friction in those pre-revolutionary years, and that from Britain's side the cause of it was national necessity. The great pines of New England could provide the masts, and the Navy had to have them.

The revolutionary war put an end to the supply from New England, but after an interval the Crown began to secure masts from the St. John River reservations. These were the more easily obtained because the country was being opened up by grants of land to exiled Loyalists. This pine region was first cut over in 1779, and next year St. John River masts were used at the Halifax dockyard in refitting British men-of-war. Two years later the dockyards in England began to receive them, and the St. John River continued to be a source of naval masts until after the turn of the century.

Pine masts were not, of course, the whole content of the early timber trade of eastern North America. Indeed the colonists looked upon the reservation of masts as an unwarranted interference with their own shipbuilding and their growing trade in forest products. Sawmills were in operation where water-power was available. Sawn lumber—the word “lumber” began to be used about 1720—was in demand for domestic use in the colonies, and it was exported to the West Indies. New England's fish and timber paid for its imports of sugar and rum, and most of this trade was carried in ships built in New England ports. Ships

for the Admiralty, too, had been built in New England, and colonial yards were building to order, for English owners.

The Admiralty had also, from the middle of the eighteenth century, been importing small quantities of oak from the American colonies. It did not find favour; naval conservatism rated it far below English and European oak. This prejudice was not fully overcome until the 1830's.

2. THE ST. LAWRENCE

In spite of prejudice, the increasing need of oak for ships' hulls caused the trade to shift again, this time from the St. John River to the St. Lawrence. In 1804 there was a critical shortage of English oak for naval construction. The woodlands of England, which were chiefly in the southern counties, were less and less able to supply the needed timber, and the Admiralty were forced to look for oak in larger quantities from across the Atlantic. A supply which would be safe from the newly independent States was desirable; dockyard men were sent out to Canada, and oak from the St. Lawrence was presently being built into the King's ships. Rapid expansion followed, and Quebec became the base of the new trade.

There had been little export of timber from the St. Lawrence under the French régime. In the seventeenth century the King of France, in his grants of land to his seigniors in Canada, had reserved to the Crown the timber suitable for naval shipbuilding, especially for masts and spars. As in New England, there was friction; for Crown and seignior laid upon the "habitant" the incompatible duties of clearing his land and of preserving the timber on it.

The British government attempted to continue the Broad Arrow policy in Canada, instructing General Murray

and succeeding Governors to reserve for the navy all "trees fit for masting." This was never done. Instead, licenses to cut upon Crown lands were issued to contractors for naval timber supply, and the contractors used their privileges as a cloak for cutting timber for commercial as well as naval use.

An early and important spur to the new Quebec trade was the closing of the Baltic ports to Britain by Napoleon's Continental System. His Berlin and Milan decrees, 1806 and 1807, forced Britain to look more and more to the St. Lawrence. Pine masts and oak timber from Quebec were of high importance in maintaining British naval supremacy through the years when Napoleon was Emperor of the French.

The exigencies of war and of naval timber supply did not, however, create and maintain the St. Lawrence timber trade. Commerce was really the dominating factor in its rapid growth. The Quebec exporters—or rather the timber magnates in England whose agents they were—saw that the Baltic ports would one day be re-opened. That event would ruin their new business, since freight rates from the St. Lawrence to Britain were from three to four times those from the Baltic. They would not invest heavily in the St. Lawrence trade without some guarantee that it would continue.

They were able to induce the government to put prohibitive duties on Baltic timber entering Britain, while colonial timber entered free. The Quebec trade was thereby set on an assured footing. The duties stimulated also the export of timber from Nova Scotia and New Brunswick, but the better-organized St. Lawrence trade soon took the lead. In 1811, five to six hundred of the small ships of the time left Quebec for England with timber and masts.

The Baltic duties, under the protection of which the

St. Lawrence trade flourished and by which the Baltic trade with Britain was well-nigh ruined, were lowered from time to time in spite of the clamour of vested interests. The reduction of 1831 was the subject of resolutions in the Assembly of Upper Canada. The reduction of 1846 was declared to be the death-knell of the trade, but, as commerce rather than war had been the reason for its first growth, so commercial demand enabled the trade to survive the abolition of the duties—its “peak” came many years later.

Beginning in 1805, laws were enacted to regulate the timber trade. Measurers and cullers were appointed by the government; some general standards for “merchantable” timber were set up; inspection fees were to be charged; rules of pilotage from “Chateauguay to Montreal,” for rafts of timber and cribs of staves, were drawn up. The first comprehensive law was passed in 1842, by which time Upper Canada had become a firmly established contributor to the export of timber.

In Upper Canada, until 1826, all cutting of timber on Crown lands was supposed to be done by contractors for government supply; as has already been said, there was much cutting for commercial sale under cover of this supposition. In 1826, fees for commercial cutting on Crown lands were instituted.

3. UPPER CANADA

From Montreal, south-westward, the boundary line of 1783 between the United States and British North America may be said, generally, to have given the fertile lands to the new republic, and to have left only fur and forest to the British provinces. The exceptions, as they could be

seen some eighty years later, were on the one hand the forests of the Adirondacks, and on the other the fertile southern lands of what became first Upper Canada, then Canada West, and finally the Province of Ontario.

It had seemed highly unlikely that a new colony could be developed so far inland, with an alien population firmly established between it and the sea. Free use of the St. Lawrence, the only link between lake and tide-water, was broken for a hundred miles upstream from Montreal by a series of great rapids. The vast forests of the country were looked upon, at first, as an obstruction to settlement, not as a potential source of wealth. John Graves Simcoe, about 1795, foresaw for Upper Canada a possible trade in furs, in fish from the Great Lakes, as well as in wheat when the land had been cleared. But he was apparently blind to the future value of the forest.

The Loyalists from the thirteen Atlantic colonies played a very important part in the successful struggle to surmount these difficulties of the early days. Their labours made settlement easier for the immigrants from the British Isles who followed them into the new Province, especially in the first twenty-five or thirty years after the Napoleonic wars.

A new country, if it is to prosper, must have a staple export. Early efforts to find one, in British Canada, were made in the fur trade, following French precedent and Simcoe's ideas. The North West Company, from its headquarters on the Island of Montreal, sent its brigades of canoes up the Ottawa, across to Georgian Bay and on up to Lake Superior until its men reached the great plains and challenged the veteran Hudson's Bay Company. That rivalry ended with the merger of the "Nor'Westers" into the older Company, in 1821.

By that date, the newer trade in timber had spread into Upper Canada, with the early Ottawa pine rafts as a link

to operations in the lower Province. The fur trade was pushed into the background; in the later 1820's the value of the timber exported from the St. Lawrence at Quebec exceeded the combined values of all other exports from "the Canadas," and colonial timber imported into Britain was more than twice the import from Europe. The staple export trade had been found and established while Upper Canada was still largely a forest wilderness.

In 1825 there came into that trade for the first time, and in a modest way, the family whose activities are our subject. In the timber trade, and in fresh water navigation, they continued for nearly a century.

CHAPTER II

EIGHTY YEARS OF COMMERCE

1. "THE GOVERNOR"

THE HISTORY of a commercial undertaking is not biography, yet something must be said of the man who created the Garden Island business and dominated it for almost fifty years. Delano Dexter Calvin (the author's grandfather) was born at Clarendon, Rutland County, Vermont, May 16th, 1798. He was the son of Sandford Jenks Calvin (an unsuccessful lawyer who had turned farmer) and his wife Abigail Chipman; his father died when D. D. Calvin was a boy of eight. In 1818, Calvin went to Rodman, Jefferson County, New York State, where he worked for three years as a labourer. He then turned eastward again, still in Jefferson County, to Orleans, and cleared a farm near Lafargeville, which is six miles inland from the village of Clayton on the St. Lawrence.

In 1825, Calvin made his first venture in the export timber trade. With the help of a neighbour he cut square timber, probably oak, rafted it at Spicer's Bay near Clayton, ran his little raft to Quebec and sold it. The profit was \$610. He continued this small timber business

until he had accumulated some thousands of dollars. Reverses came, and he lost nearly all. But he kept on, and prospered, establishing himself firmly at Clayton.

For reasons which will appear later, he set up a branch of his business at Garden Island, near Kingston, Upper Canada, in 1836. In 1844, Calvin came to live on the Island, which soon became his headquarters, though to the end of his life he was financially interested in a rafting establishment at Clayton.

Calvin became a British subject in 1845, and was soon afterwards appointed a magistrate. When Garden Island was incorporated as a village, he was its perennial Reeve. This took him into the Council of Frontenac County; he was four times Warden of the County. In 1868 he was elected to represent Frontenac in the Ontario Legislature, at a by-election following the death of Sir Henry Smith of Kingston (Solicitor General for Upper Canada, 1854-1858). Calvin was returned by acclamation at the next general election, but retired when that House was dissolved. He was again elected in 1877, at a by-election which, as in 1868, resulted from the death of a sitting member (Peter Graham). He resigned in 1883, because of failing health, and died at Garden Island, May 18th, 1884, two days after his eighty-sixth birthday. He was buried in Clayton.

The funeral was carried down the river in two steamers, their flags flying at half-mast. One had come to the Island with friends from Kingston, the other was a Garden Island steamer. The pall-bearers were Sir John A. Macdonald, Prime Minister of the Dominion, George A. Kirkpatrick, Speaker of the House of Commons (later Lieutenant-Governor of Ontario), Alexander Gunn, M.P., James Richardson (founder of the great grain firm), John Fraser, John Kerr, W. Ford and Richard T. Walkem.

In politics Calvin was a Conservative and a supporter

of his friend Sir John A. Macdonald. In 1869 he was appointed to the Canal Commission, with Sir Hugh Allan, Casimir Czowski, and others. In 1872 the Commission recommended deepening the Welland and St. Lawrence canals, but Calvin, personally, was strongly opposed to any attempt—it was even then being discussed—to try to make these canals available to ocean-going vessels. He held, as many freshwater navigation men still hold, that the true lake and river craft could do the carrying to Montreal much more cheaply.

Calvin had in full measure the self-confidence which is usual in the man who has risen against early handicaps. He had had very little education—is it perhaps possible, as was said by a western timber man, that education *does* “take all the enterprise and natural savvy out of a man”? He learned the timber and shipping business, then, at first hand and by his own experience, without influential friends and without “backers.” To a visitor on Garden Island in the 1870’s who said to him, “You’re very luckily situated here, for doing your special business,” he replied, “Lucky? I chose this place myself.” He would tackle any job. “Mr. Calvin started this morning as Captain of the steamer *Prince Edward*, with the last raft in tow,” says an October letter of the 1840’s—he was “captain” only because he was doing the job, he had no “master’s certificate.” He was his own “boss wrecker” until he taught others to use the pumps which he invented. And so on.

In politics he was the same man. Of his constituents, in an election campaign, he once asked, “Did I ever tell you a thing would turn out right, and it turned out wrong? Did I ever tell you a thing would turn out wrong, and it turned out right?” Charles Clarke, in *Sixty Years in Upper Canada*, says of Calvin that “when he rose to address

the House, he did not speak to empty benches." That may have been due in part, however, to the fact that he retained much of the "down East" American in his speech and manner. My father used to say that when he read *David Harum* he was often reminded of his own father.

Story and legend of "the Governor," as his men spoke of him, were legion. Many were tales of his physical prowess. There were also the expressions he used, and his sayings, which were not always unprejudiced—he disliked short men, for example, for no better reason than because they were short. His comparisons—"meaner'n a five-cent piece on edge," "smaller'n a pint o' cider half drunk up," were not unlike David Harum's "nicer'n a cotton hat." He disliked dogs—"when a man's poor he gets a dog, if he's very poor he gets two." He alleged that a man who bit his finger-nails could never succeed in business. "The Governor bought two horses yesterday," says a letter of the 1870's, which goes on, "I need not tell you the price, the Governor has but one price for a horse, \$80."

One special story—Calvin was a total abstainer, perhaps a rather aggressive one; no liquor was ever sold on Garden Island, in his lifetime or afterwards. Long ago, about 1860 or earlier, a ferry-steamer which had a bar on board used to call at the Island, staying long enough to sell drinks to the workmen. At last "the Governor," after many warnings, said to Lew Ives, her owner-captain, "If you make fast to my wharves again I'll cut your lines." "If you do, I'll shoot," was the reply. Next day "the Governor," dressed in his habitual frock coat and high hat, was waiting, axe in hand. As the steamer came in, Ives leaped ashore and covered Calvin with a rifle. The lines were put out. Instantly the axe fell, but no shot followed. "The Governor" knew his man, of course, still . . .

Calvin was a good example of the pioneer man of business in Canada. He built up from the very smallest beginnings an organization which stretched from northern and southern Michigan, Ohio and Indiana, down the Lakes and the St. Lawrence and across the sea to Britain. For many years some six to seven hundred men were employed, and the annual business done was about \$1,500,000. But Calvin's joy was in doing things, not in making money. He spent little on himself, the records show that his personal expenses were never more than \$4,500 a year.

Canadian history, until very recent years, has been written too much in terms of war, constitutional development, racial problems, political struggle. All these things have their place, but, from another point of view, the true history of Canada lies in the unwritten stories of the vision, courage and tenacity that pioneer men of business gave to the development of the country. And one of them was "the Governor."

In religion, Calvin was a Baptist. He was three times married: first to Harriet Webb who died in 1843; second to Marion Breck, whose mother was Miranda Collamer, sister of Jacob Collamer, who was Postmaster-General of the United States under President Zachary Taylor in 1849. She died in 1861. His third wife, Catherine Wilkinson, survived him for many years.

Of his children, Hiram A. Calvin (1851-1932), son of the second marriage (and the author's father), comes most prominently into the Garden Island story, for Dexter, son of the first wife, was accidentally killed in 1858 as a young man of twenty-two¹. Sandford, son of the third wife, was associated with H. A. Calvin in the last twenty-five years of the business.

¹See pp. 121-122.

2. AMERICAN CONNECTIONS

In spite of having been a British subject for the latter and more prosperous half of his long life, Calvin always had the feeling that his occupation—even his ownership—of Garden Island was temporary. Somehow, at some time, he would go back to the United States.

This feeling may have had different sources. All his relatives, and the friends of his youth, were there. Again, the chief part of his business, in his busiest years, was making oak timber in the States.

Whatever the reasons, it is certain that he built at Garden Island no mill, no house, no wharf which could be expected to have a really long life. Everything was of wood—though unlimited limestone was at hand—and was pronounced “good enough” if it would serve an immediate purpose. The one exception to this rule was the outermost pier of the long breakwater which sheltered the main wharves from west and south-west gales, and from moving ice in the spring break-up.

Throughout his life, Calvin maintained contact with his business friends in Clayton, Watertown and other places in New York State. As might be expected, this feeling of kinship with the United States showed itself very definitely during the Civil War. In a letter of April 29th, 1861, his partner, Breck, writing to John Storey of the Quebec office, says that he had been at Cape Vincent to see the excitement—“colours flying, drums beating, cannon firing, boys drilling . . . several young men, sons of my old schoolmates, have enlisted. . . .” He goes on to speak of George van Camp, an American and Storey’s senior in the firm’s Quebec office, who was in the South; Breck fears that George will have difficulty in getting through the Confederate and Union lines, in Virginia. He did get

through, for Breck wrote to him at Quebec, July 4th, 1861, a letter in which he says that "Mr. Calvin, with his children and mine, is over at the Cape today celebrating 'the fourth.' . . ." Sympathy for the Union side was not merely passive; my father used to say that among his boyhood recollections were the rolling of bandages and packing of supplies for the hospitals of the Northern armies, in the sitting-room of "The Old House" at Garden Island.

On May 16th, 1862, Calvin wrote to the Secretary of the Navy, Washington, D.C. Too many of "our" gunboats, he says, are being sunk by the "rams" of the Confederates, and he suggests that a wrecking-pump of his own invention might be useful in raising some of them. If the Navy Department will send a man to see his pumps, he will be glad to show him their workings—meantime "the within cut" may be of interest. There is no evidence, in the records, that the Department took any action.

To the end of his life "the Governor" retained certain property, other than timber lands, in the United States. He never sold his farms near Lafargeville; in 1879, aged eighty-one, he sent four men from Garden Island, by way of Cape Vincent, "to repair some old barns" on one of them. Still later, in August, 1882, he wrote to his friend and agent in Watertown, Dewey by name, to tell him that the tenant of a house he owned in Lafargeville was to have it "free of rent until her death."

The ultimate expression of this feeling for his American origins was Calvin's desire to be buried in the soil of the United States, in the village of Clayton.

3. PARTNERSHIPS

A Kingston newspaper of May 22nd, 1884, giving an account of D. D. Calvin's career, says that his first venture

at Garden Island was the organization of the Kingston Steam Forwarding Company, and that he sold shares to many Kingston merchants.

A ledger opened in March, 1836, may have something to do with this, for it is undoubtedly a record of an attempt to set up a joint-stock business. Its first account is that of Calvin himself—he is “of Jefferson County,” for he was still living in Clayton, N.Y.—and its first entry is “To Stock, £1500,” upon which, up to November 17th, Calvin had paid in £576. Then follow twenty-five other “To Stock” accounts, in amounts from £10 upwards. The largest of them is the £500 subscription of Archibald Hitchcock, Wolfe Island. Another of the subscribers was John Counter, eight times Mayor of Kingston.² Fifteen of the twenty-five subscriptions were soon marked “forfeited,” several others were “transferred to D.D.C.,” who also assumed half of Hitchcock’s share.

It is impossible to be sure, from the available records, whether any business was carried on at Garden Island by this joint-stock company, nor indeed whether it ever really came into existence. The first true Garden Island partnership—Calvin, Cook and Counter—was certainly well established at the Island by 1838. Hiram Cook, like Calvin, was an American and a Jefferson County man; they had been associated in earlier timber operations, from 1825 or 1826. Cook came to live at Garden Island about 1836, Calvin remaining in Clayton; John Counter seems to have been their link with Canada, and their financial adviser. Counter withdrew from the partnership in 1843, and the name of the firm became Calvin, Cook and Company.

²In March, 1843, Counter, as Mayor of Kingston, then the Capital of the Province of Canada, officially welcomed Sir Charles Metcalfe, the new Governor-General. Metcalfe had landed at Boston, travelled to Cape Vincent, N.Y., and reached Kingston by driving across the ice of the harbour.

Counter's reason for withdrawing was his dissatisfaction with the management of the Quebec branch of the business. The Quebec firm had been set up in 1841, under the name D. D. Calvin and Company. The partners were the same as those in the Island firm. In 1843, upon Counter's withdrawal, or immediately before it, Timothy H. Dunn of Quebec joined the partnership; the Quebec firm became Dunn, Calvin and Company, but the name of the Garden Island firm was not changed.

A third trading-name, of the same partners, appeared in the middle 1840's. After Calvin moved from Clayton to Garden Island, in 1844, Cook went to Hamilton, the western end of the timber trade of that day. This third branch in Hamilton was called Hiram Cook and Company. On June 1st, 1850, this partnership under three firm names was dissolved. Dunn withdrew, and the Quebec name again became D. D. Calvin and Company. The Island name was shortened to Calvin and Cook, the name at Hamilton remained unchanged.

At the end of 1854, Cook was forced out because of certain dealings of his branch of the business. These have not been traced, but Calvin strongly disapproved of them. On January 1st, 1855, the Island firm became Calvin and Breck; the new partner, Ira Allen Breck, had been chief clerk for Calvin and Cook, and was Calvin's brother-in-law. George van Camp, manager at Quebec, was given a small share in D. D. Calvin and Company. The Hamilton firm continued as Hiram Cook and Company, without connection to or interest in the Garden Island or the Quebec firm.

The name Calvin and Breck continued for exactly twenty-five years, to January 1st, 1880, when Breck retired and the firm became Calvin and Son—D. D. and H. A. Calvin, who had been a partner in Calvin and Breck from 1874.

The division of D. D. Calvin's estate, after his death in 1884, brought the final change. H. A. Calvin, with his brother, S. C. Calvin, and two of their sisters, organized The Calvin Company, Limited, which was incorporated June 2nd, 1886. In Quebec, the business continued under the name D. D. Calvin and Company until August, 1887, when it became a branch office of The Calvin Company.

This final Garden Island firm lived for twenty-eight years, to 1914—a longer period than any of its predecessors—but its resources and the extent of its business were much less than those of the years 1865-1885. Its activities, as they are set out in the Act of Incorporation, are a résumé of most of the varied enterprises of the Garden Island business for fifty years before—general merchants, manufacturers, forwarders, common carriers, wharfingers, warehousemen, ship and vessel owners and builders, lumber merchants, wreckers.

The acquisition of Garden Island by D. D. Calvin and his partners is a little story in itself.

The original owner of the Island was Angus Cameron, a retired military officer. His Patent from the Crown is dated March 8th, 1844, and shows that he paid £163 15s. Cy. for it. By what right, then, had he occupied the Island before that date? He had certainly been there for many years previous to 1844. On March 13th, 1846, Cameron, as owner, obtained from the Crown Lands Department of the Province of Canada, "License of occupation . . . for a water lot in order to bestow a right to the use of improvements made" at Garden Island, namely, a "harbour" at its easterly end.

There are no records of what the exact conditions were, but Calvin and his partners had been using "the foot" of Garden Island as the base of their rafting and shipping

business for eight years, 1836-1844, presumably leasing the space from Cameron, before Cameron received his Patent. Had Cameron been only a "squatter"? The "harbour" must have been built by Calvin and his partners, for their own use. It may be supposed, too, that they were contemplating purchase, and insisted that Cameron should first secure clear title to his Island and to the "water lot" enclosed by the "harbour."

On November 28th, 1848, Calvin and Cook bought from Cameron fifteen acres at the easterly end of Garden Island, for £1750. Calvin and Breck bought the remaining fifty acres (sixty-five in all) on November 26th, 1862, for £1000. In 1866, Garden Island, with a population of seven hundred and sixty-one persons, was "erected into an incorporated village," and so remained until very recent years.

4. THE BUSINESS

The beginnings of the Garden Island business have nothing in common with those of a modern undertaking, for which money is first found, then invested in buildings and equipment, with a reserve for working capital, and which then begins full-scale operations, forthwith.

In conditions wholly different from today's, the Island business developed slowly, and did not assume immediately the form which it took in its busiest years—1860 to 1885, say—years when the firm had been long established. Its work in those years was making timber, forwarding it to Quebec and selling it there, forwarding timber for other owners, building wooden vessels and operating them, towing on lake and river, and salvage work. The earlier years tell a different story. Timber-making was on a smaller scale, and the Island firm owned only two or three small schooners and a couple of river barges.

From 1825, as already said, D. D. Calvin had been taking timber from Clayton, N.Y., to the Quebec market. There is no contemporary evidence, for there are no records of that early period, of the motives which led him to make a new start, twenty miles up-river, in 1836. But in 1852 Calvin and Cook, writing to a timber-man named James Flood who was debating whether he should order his schooners to take his timber to Garden Island or to Clayton, told him that "it is much better to unload here than to go twenty miles down the river in bad beating grounds. . . ." Again, in 1858, Calvin and Breck, writing to D. C. Thomson, Quebec, and once more comparing Garden Island with Clayton, say, "It is much easier to arrange with vessels to freight to us, inasmuch as we are some twenty miles above them, of river navigation. . . ." The difficulty of going below Garden Island (Kingston) under sail, then, and the greater difficulty of "beating" up against the current (and the prevailing winds) seem to be the clues to the move up-river. The choice of Garden Island was due to the fact that behind it, to the south-east, there is a sheltered area of shallow water—an ideal place to unload timber and raft it, or to hold it over the winter. And there is this, also; Calvin must have seen during his years at Clayton that an increasing proportion of the timber rafted there was coming, not as at first from near by, but from Lake Ontario ports—and that this must continue.

Yet it was a bold move. The conditions of the 1830's are recalled in a letter from an aged Wolfe Island pioneer, Peter Kiel, to H. A. Calvin in the 1890's. He writes first of Wolfe Island and of the change, which he had seen, "from its primeval state, the home of deer and wolves . . . settlers moved in . . . the dark woods gave place to fields of grain." Then—"Garden Island was desolate and

lonely, but Mr. Calvin soon made it a hive of industry and a ready market for Wolfe Island produce."

The first cash books, journals and ledgers are proof that Kiel's recollections were true, and that Garden Island did, in a few years, become a busy spot. Within twelve months appear most of the traditional accounts of the Island firm's bookkeeping. Raft Account comes first, as it always did; then there are accounts for the schooners trading to the Island, among them the *Aurora Bora Ellis* and the *Prince of Wails*—illiterate spelling, but written in the beautiful clear script of the time. Shipyard, Smiths' Shop, Boarding House, Sail Loft and the rest are all there as early as 1841. There are also, from 1846, the first "Joint Accounts," recording on one side the advances made to various men to finance their timber-making in the woods, together with freight charges by schooner and raft to Quebec—on the other the moneys received from the sale of the timber. The operation of the Government Tug Line³ dates from 1849. These things fix the pattern of the Island business in the larger years that were to come; but there were various other dealings, in these first years, which are not found later.

Barter is one of these. Barter was common enough between settler and store-keeper, in Canada West in the 1840's, but it is interesting to find, among records of business dealings of wider scope, many small contracts in which no money was to change hands. Goods were exchanged directly for other goods, or for services. For example: November 4th, 1843, a bill of the Quebec Forwarding Company to Calvin, Cook and Counter, £127 10s. for 400 barrels of salt, has at the foot of it, in the writing of R. Innes, the creditor's agent in Kingston, "To be paid for

³See Chap. V. 3.

in freight to Quebec⁴ at the rate of 1s. 9d. per bbl. of flour." In 1848, Calvin, Cook and Company shipped a quantity of scrap iron to Oswego, N.Y., consigned to the agent there of the Troy Iron Works, who supplied boxes of his firm's rivets (for boiler-making) in exchange. There are many other instances of barter: salt for pine plank; wood fuel for towage; a Wolfe Islander had a horse from Calvin and Breck, May, 1858, for which he engaged to pay \$50 "in produce, next fall," or, if he could not pay, he would return the horse "at the first crossing of the ice."

Export of flour was an important part of the economy of those days, and storage space was needed at the point of trans-shipment from lake schooner to river barge. Calvin and Cook took advantage of this fact. A Kingston man, McCuaig, in March, 1848, asked their charge for "a sufficient number of the sheds now in course of erection by you on Garden Island" to store 7,500 barrels. He offered £75 per year, and asked an option for a second year at that rate. Calvin and Cook offered to Dickinson, Jones and Company of Montreal "two of the Shed Ware Houses we are now erecting . . . 2,500 bbls. each . . . £50 per annum," including an option for another year at the same price. In 1851 ten of these sheds were rented; a July gale blew down seven of them. On the day of the storm, the 25th, Calvin and Cook wrote to all their tenants that they must repair the damage, the owners will expect to have the sheds back at the end of the season, in good condition, "ordinary decay excepted." Not knowing the terms of lease, judgment upon the owners' action must be suspended; it is clear enough, however, that the "Shed Ware Houses" must have been a good example of the temporary kind of building which "the Governor" favoured—and they were probably homely enough in appearance.

⁴The flour would be carried, probably, on the rafts.

Another activity of the 1850's was freighting British "railway iron" (rails) from Quebec, Montreal, Kingston and Garden Island to ports on Lake Ontario and Lake Erie. This was of course a part of the construction of the Grand Trunk and Great Western Railways, and of the railroad boom in the United States. In 1850 the brigantine *Beaver* carried 1,500 rails from Kingston to Cleveland, Ohio, for the Cleveland, Columbus and Cincinnati R.R.; the *Georgiana* left Garden Island July 8th, 1850, with 80 tons of rails, "it was all we had here at the time," Calvin and Cook wrote to G. W. Usburne, the agent of the railway at Cleveland. (Evidently the firm was doing a two-way storage business at the Island, for rails up-bound as well as for flour down-bound.) In 1851 the summer rate on rails from Kingston to Detroit was ten shillings Cy. per ton of 2,240 pounds—it rose to twelve and sixpence on October 15th and to fifteen shillings on November 1st. In 1853, Calvin and Cook carried rails from Quebec to Dunnville (up the Grand River) for \$5 per ton. On December 3rd, 1854, their schooner *Minerva Cook* left Garden Island with rails for the Great Western at Hamilton. After this, for thirty years, there is almost nothing in the records about rails; in the early 1880's Calvin and Son offered to carry some from Kingston to Duluth, Minnesota—probably for the C.P.R. contractors—at \$2.25 per ton. (It may be noted that this rate was less than half of the rate thirty years earlier, though it was for twice the distance—roughly \$2.25 for 1,200 miles, against \$5 for 600 miles.)

In 1853 Calvin and Cook offered to carry locomotives for the Great Western Railway—two at a time for £100 each, or four at a time £87 10s. each. The letter unfortunately does not say where the locomotives were to be loaded or delivered—it may have been written in reply to a published advertisement for bids. Locomotives were

not built in Kingston until 1854, and it is probable that those in question were from Britain and that the rates quoted were from Quebec or Montreal to Hamilton. The locomotives must have been very small, to be carried on the decks of the schooners or barges of that time.

Barter, flour storage, steel rails, locomotives—these are special points of the early years. They are examples of the fact that in those years the business was more general in its scope than it afterwards became. "The Governor" was careful—he used to say that it was better to miss half-a-dozen good bargains than to get into a single bad one—yet he was ready to try to make a dollar in any legitimate way. The records of the Quebec office show that farm produce—cheese, peas, beans—was often sent down on the rafts, consigned to D. D. Calvin and Company, to be sold in Quebec. Sometimes the firm, or "the Governor" personally, had a share in the venture, more often the goods were handled on commission. Again, the firm often acted as shipping agents for producers of timber which was to come out to ports on Lake Ontario, and later to Lake Erie ports. Usually, of course, it was stipulated that the vessels so chartered should come to the Island and that the firm should raft the timber to Quebec. Still another activity shown by the books of account was the buying and selling of salt in considerable quantities.

It must be borne in mind that until the Grand Trunk Railway from Montreal to Toronto was completed in 1855, the only ready communication through "the Canadas" was by the St. Lawrence and the Lakes. Kingston had an importance, as the meeting point of lake and river traffic, comparable to that which Montreal was even then assuming as the head of ocean navigation. Perhaps the chief reason for the survival and growth of the Garden Island business was that neither railways nor canals affected the

Island's strategic situation as the true trans-shipping point of timber, between lake and river. The lake schooners increased in size and in numbers; they were superseded by lake steamers and big tow-barges; but the raft, as long as there were trees available to be made into timber for export from Quebec, remained the cheapest and best way to take the timber down the great river. Moreover, the Quebec exporters preferred to receive their timber by raft, even after delivery by lake timber-vessels, or by rail, had become possible. Compactly rafted timber was much more easily cared for than loose timber unloaded from vessels or flat-cars. Moreover, the wood was benefited by its longer time in the water.⁵

The various divisions of the Garden Island business, as it was in its best years, and as they were set out at the opening of this section, will be described in the succeeding chapters.

5. FINANCE

Throughout the Garden Island story it is plain that the firm, under its various names, was always a borrower to the limit of its credit. This originated, undoubtedly, in a necessity much wider than the Island firm's needs. The disparity between the great natural resources awaiting development in "the Canadas," and the scanty capital available, inevitably meant borrowing. "The Governor" used to say that he had never been able to borrow enough money to do all the things he wanted to do. Financial progress, under his management, was represented by increased timber operations, or by new vessels, never by accumulated funds. All profits were "ploughed back" into the business, no dividends were paid. A letter of 1866,

⁵See p. 68.

from John Storey of the Quebec office to Calvin and Breck at Garden Island, shows that this view prevailed throughout the organization. Storey had a balance in hand which he offered for Head Office use until he called for it. "To one who wants to stand well with the Banks," he wrote, "it is of great importance to have a handsome balance . . . but for me I hate to see them holding a pile of money without so much as Thank You."

It follows that the Island firm was never a lender. Time and again, letters to would-be borrowers tell them that "it requires all our credit to keep moving" or that "we are always borrowers, and have not got money to lend." They did, of course, lend money when it was necessary to do so as a part of their own affairs—a long-lived mortgage of Union Cove, Quebec (where the rafts landed), to D. D. Calvin and Company, is a case in point. But borrowing was the rule; for example, the regular employees were invited to "bank" with the firm, which paid them one per cent. over Savings Bank rates for any balance of salary or wages left undrawn.

At first, due to Calvin's American origin, his firm—really he himself—did business with New York State Banks in Clayton, Ogdensburg, Watertown and Sackett's Harbour. In a very few years, however, this ceased, and dealings began with The Bank of Upper Canada, The Commercial Bank (Kingston), the Gore Bank (Hamilton) and "The British Bank of North America."⁶ By 1846 the Bank of Montreal was regularly advancing money to D. D. Calvin and Company, Quebec, on their notes endorsed by a Quebec firm, which charged two per cent., and held a mortgage on one of the Island firm's river steamers as security. A little later the Bank of Montreal's

⁶The Bank of B.N.A. ?

credits were being made at their Kingston office, on notes of the Island firm endorsed by a Kingston man who charged one per cent. and who does not seem to have held any mortgage or other special security.

The proceeds of these notes were used chiefly in buying and making oak timber near Kingston; the notes were retired, when the timber began to move towards Quebec in the spring, by drafts of the Island firm on its Quebec office, D. D. Calvin and Company. These drafts, in their turn, were retired by the Quebec office as it sold the Island firm's timber and collected freight on other timber rafted from Garden Island. In 1859 the total of these drafts was \$88,500. That sum, however, was not the whole of the firm's "paper" in that year. From 1845 to 1864 the firm had advances from other Banks as well as the Bank of Montreal. They dealt with The Bank of Upper Canada and the Gore Bank for their "western" business, that is, for timber coming to the water for loading into schooners at Hamilton and at Lake Erie ports.

It was not all plain sailing. Bank credits were not always available; "I am trying to finance here with Notes," Calvin wrote to David Burnet, a Quebec friend, in November, 1852, "and I find it hard work." To a timber-maker he wrote, at the same time, ". . . you must be more careful . . . easier [for you] to pay money out than [for us] to meet your drafts . . . the Banks are closing down hard." Letters from Garden Island to Quebec show that 1855 was a still more difficult year. For example: ". . . the Banks are very close, and hard as adamant"; and ". . . confoundedest time for money . . . cannot get enough to buy tobacco . . . get it on credit." (This was Breck's cry of distress, Calvin did not smoke.) Yet there is an 1855 letter

to the Gore Bank, acknowledging their "kindness in granting us credits which enable us to keep our western business going."

"Tight money" caused resort to various expedients. Advances were secured from private firms in Quebec upon the security of the Tug Line bonus⁷ and upon unsold timber lying in the coves at Quebec. There were also some complicated arrangements under which Quebec firms advanced money to finance the making of timber, the timber being consigned to and sold by Quebec firms and an accounting rendered to Garden Island. At one juncture, a Quebec firm had temporary control of all the Island firm's sales of timber. Conversely, when the financial pressure was upon the Quebec firms, the Island firm advanced money to the consignees at Quebec upon the security of timber wintering at Garden Island.

These conditions passed away, and, as the firm's business expanded, two things happened in this all-important matter of banking accommodation. First, endorsers of the firm's paper were no longer asked for; second, from July 1st, 1865, the Bank of Montreal, at the suggestion of E. H. King, the General Manager, was given all Calvin and Breck's banking—their annual credit was set, to start with, at \$90,000.

This arrangement came exactly in the heyday of the Canadian export timber trade, and the firm prospered accordingly. The assets, which in 1854 were £54,000 Cy. (\$216,000), had fallen to £37,000 (\$148,000) in 1858, but on January 1st, 1869, they had reached \$380,000, and \$460,000 in 1871.

In 1873 the British market "broke," and did not recover for several years, indeed it may be said that it

⁷See Chap. V. 3.

never fully recovered. Timber glutted the coves at Quebec, the Island firm was a heavy loser. When the crash came, Calvin and Breck owed the Bank of Montreal some \$600,000; in May, 1879, the debt stood at \$205,000—four months later it was down to \$40,000. But this had been accomplished only by selling timber far below cost; the firm's assets, which even in 1876, after three years of stagnation, stood at over \$750,000, were under \$600,000 in 1880.

It is not in nature that the relations of Bank and customer should be bettered by such an experience. In October, 1879, Calvin and Breck "relinquished" their seven per cent. credit with the Bank of Montreal and began to look elsewhere for a six per cent. rate. "The Governor," then aged eighty-one, went to his American banking friends and made tentative arrangements for credits with them, especially for the firm's timber operations in the United States.⁸ Finally the Bank of Montreal offered to charge not more than seven per cent., and gave Calvin and Breck a credit of \$200,000 for 1879-1880. The firm continued to deal with the Bank of Montreal until about 1886, when The Calvin Company's account went to The Merchants' Bank, where it remained until the business came to an end in 1914.

6. HABITS OF WORK

There are some attitudes, prejudices, loyalties, ways of looking at things, which continually emerge from the records of the Garden Island business. Taken as a whole, they perhaps make up a definite commercial policy.

For example, from the early years the firm was quick to give a competent employee a financial share in his part of its work. In 1849, Captain Montgomery of the little

⁸See pp. 46 ff.

river-steamer *Raftsmen* had four per cent. of the steamer's profits above £500, added to his wages for the season; a few years later the rate became twenty per cent. From this it was but a step to giving a man an actual share in the vessel he commanded; Captain John McCall, in 1858, had a one-fourth share, \$750, in the brig *William Penn*. That is, he was allowed to borrow the \$750 from the firm, at interest, both repayable from his share of the profits—or his share of loss would be added to his debt, as the case might be. Captain Booth had a similar "stake" in the barque *London*. This arrangement with captains who would take up the challenge to go into debt, like their employers, is found all through the records. Captain A. H. Malone⁹ had a share in four successive commands, schooner and steamers, for a period of over forty years.

Reasonableness, of course, is fundamental. "Don't try to get the last cent, the other fellow has to make his living," was "the Governor's" rule. Over and over again deductions were made from accounts rendered: ". . . we do not wish you to think us in any way unreasonable . . . we will meet your views" (1863); "The account is reasonable . . . but we wish no unpleasantness . . . call it \$300" (1869). A debtor's request for a compromise was granted with the comment that "we do not wish to be considered hard." An important timber exporter in Quebec asked that the next raft should wait for his timber—No, Calvin and Breck wrote, the raft could not be held, for "we must be equally just to all customers" (1864).

Avoiding litigation was almost an obsession. "As for law, we think it is the height of folly for either you or us to waste money on it," Calvin and Cook wrote in 1853 to an owner who alleged delay to a vessel of his which they

⁹See Glover and Calvin, *A Corner of Empire*, Cambridge, 1937, pp. 66-72.

had towed—" . . . our Captain Jones will give you full explanations." To van Camp, of D. D. Calvin and Company, Québec, they wrote in 1854, ". . . we greatly prefer that you should settle amicably . . . try to do so, and have it finished." In 1876, William Kelly, engineer in the steamer *Bay of Quinté*, was served with notice of suit, at Cornwall, about an account for wood fuel. Calvin and Breck wrote to Kelly that they had heard nothing about it, had Kelly any good reason for refusing a voucher for payment? and then, ". . . try to have the matter settled without a law suit." And so on.

This feeling about "law" did not extend, however, to allowing themselves to be imposed upon. For instance, 1850, they must hear "both sides of the story. It will not do to allow people to run over us rough shod." On October 6th, 1851, "the Governor" wrote to his partner, Cook, at Hamilton, ". . . if it was my case I would not agree to pay one red cent . . . I hope you will carry a stiff lip with him." And in 1854 he told van Camp at Quebec, about a dispute over some oak, that the buyer "shall take the timber as it is."

In the early years, as has been said, the business was more varied than it was in its greater years. Indeed, from the middle 1860's onwards, there is a strong note of conservatism. On March 14th, 1866, Calvin and Breck wrote to Duane Cook, who was making oak timber for them in southern Michigan, ". . . we see you have got a touch of the oil fever . . . we hope you will not get it bad enough to lead you into a loss . . ." (Cook was allowed \$500 to invest, no trace of it is to be found at any later time.) In 1876, the firm declined to join in a barge-forwarding venture on the river, "directly or indirectly," though friends in Montreal urged them to do so. In 1884,

H. A. Calvin warned the firm's Ohio timber-man not to try making or buying elm logs—"We have never made anything . . . in Ohio . . . except oak."

A weakness in the partners' attitude to the daily round—at any rate it would probably be thought a weakness today—was that they allowed themselves so little leisure. Their employees all worked for the long hours which were then customary, and the partners seem to have worked even longer. We have seen "the Governor" taking a holiday on American soil for "the Fourth of July," but more significant is the fact that the letter-books and books of account show all the dates which are now holidays—January 1st, May 24th, and the rest of them. On Christmas Day, 1878, H. A. Calvin, then a young man under thirty, wrote many long, important business letters, obviously several hours' work. This single-hearted devotion to the business, however, was the basis for a plain statement to one of the firm's customers—"You can always depend on us." It was not a boast, it was a fact.

As a result, the Island firm, in its forwarding business, had the good will of timber-men, producers and exporters alike, even though the firm was also their competitor in making and exporting. Constantly the reply to requests for forwarding work was that made by H. B. Rathbun in 1877, "We shall certainly give you the preference." Often the producer wrote to the firm to say no more than where and when his timber would be ready for the Island vessels at port or river-mouth, with no question whatever about freight rates. Sometimes the producer would tell the firm where to look for further work. Or it might come from the Quebec end of the trade, the exporter writing to say he had contracted for certain lots of timber which at a certain time and place would be available "for your firm to forward. We can discuss terms later."

The records disclose many acknowledgments such as that of E. L. Kelsey of Detroit, in the 1880's, "I felt sure that you would treat the matter fairly." A Quebec merchant, writing to say that he had received the firm's formal confirmation of an agreement, added that "the pencil memos" which had been made when they met would have been a sufficient contract.

What may well be the best example of these pleasant, confident, man-to-man dealings, occurred in one of the very last years of the Island's business. For several seasons the firm's steamers had been carrying about 35,000 tons of iron ore from Lake Superior to a certain blast-furnace in Ontario. The rate for the next season had been agreed upon. A day or two afterwards a letter from the manager of the furnace company told the Calvin firm that there had been a mistake—they would be glad to pay ten cents per ton more than the agreed price.

Towards the people of the village of Garden Island, all of whose men-folk were employees of the firm, "the Governor" and his son felt a responsibility similar to that which they felt to their customers. "You can always depend on us" might equally well have been said to employee as to customer.

When the timber market broke, in the panic of 1873, timber-making was of course curtailed, but "the Governor" had no thought of "shutting down altogether," as so many firms and employers did in that grim time. No, the business he had built up at Garden Island must at all costs be held together. "The Governor" called his senior employees to the office and put the situation to them. (I paraphrase the story as I had it from my father.) This thing, he told them, is too big for anyone to tackle alone—

we must all carry a little piece of it—the firm will lose money—wages must be cut, and we must all “live close”—it will be hard going, but we’ll fight it out together.

The building of the ocean-going barque *Garden Island*¹⁰ was the peak of “the Governor’s” effort (and sacrifice) to keep his men employed—and a very costly effort it was. “Your grandfather,” Captain Abe Malone once said to me, “had a heart as big as all outdoors.”

¹⁰See *Queen’s Quarterly*, February, 1933, pp. 58-64.

CHAPTER III

TIMBER

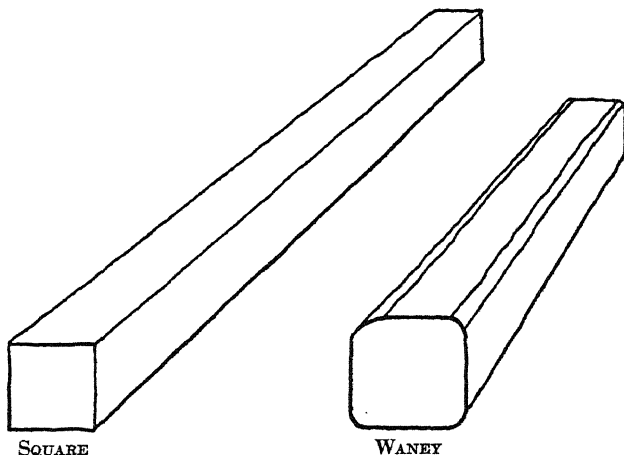
1. GENERAL

IN THE QUEBEC export trade the word "timber" had, and still has, a specific meaning not assigned to it by the dictionary. Timber meant tree-trunks brought by the broad-axe to four flat sides. This "stick" tapered slightly, like the tree it had been cut from; for this reason its sides were always measured in the middle of its length. Again, the cross-section of a stick was not necessarily an exact square; its size at its mid-point might be, say, 13" x 14", 15" x 17", 16" x 19". Square timber was made and sold to a certain average cubic content per stick—other things being equal, a larger average brought a higher price.

In all that follows, on the subject of timber and rafting, oak means white oak, *quercus alba*, and pine means the true white pine, *pinus strobus*.

The Garden Island records show clearly the rapid decline in the average size of the oak timber which was rafted there for Quebec. In 1857, seven schooner cargoes taken at random from a list of seventy-four, average from 62 cubic feet per piece to 111. The average of the seven cargoes is 84 cubic feet. A dozen single pieces of big

timber, picked from the specifications of these cargoes, average 198 cubic feet per stick. The biggest is 61' x 24" x 25", containing 254 cubic feet; the tree from which it was made would have been 35" or 36" in diameter at sixty feet above the ground. In 1907, a good average for oak was 60 cubic feet, less than the smallest average of fifty years earlier. The 1857 oak came chiefly from what is now called the western peninsula of Ontario; in 1907, oak came almost wholly from the States of West Virginia, Kentucky and Tennessee, with a little from Ohio.



For many years, all timber was made square, but in the late 1850's pine timber-men began to realize that by using this method they wasted too much of the best wood in the lower part of the tree-trunk. This resulted in making what is called waney pine. Waney timber is only partly squared—broad, slightly rounded corners called "wanes" are left, from which the bark is removed. These waness might occasionally be of regular width on all four corners,

and for the whole length, of a stick made from a perfectly straight tree. Usually, however, they varied because of the taper of the tree, or because of a "sweep" or long slight bend, in it. The waney cut was used for the best of the pine; that is, the lower part of a first-class tall pine would make one good waney stick, its upper part would make a piece (or two) of square timber. Smaller, rougher trees would be cut square.

The waney cut never became popular for hardwood timber. It is true that ash was so made, but there was little ash timber sent to Quebec. Oak was sometimes cut "waney"; birch usually, but that wood does not come into the Garden Island story. In the export timber trade, the adjective "waney" soon became a noun as well, and meant waney *pine*, which was also called (especially at Quebec and in Britain) board pine or waney boardwood. When "waney" was used as an adjective to describe timber other than pine, the kind of wood was always named—waney oak, waney ash.

The measurement of timber calls for some explanation. The length, in feet, of any stick was easily found, of course. The other dimensions, in inches, of square timber, were taken with a light steel ruler or "gauge," marked up to 30 inches. A short right-angled piece (at the start of the scale) allowed the measurer to lay it easily and accurately across the stick. In two quick motions he determined its size, also whether it was square or not—say 14" x 14" or 14" x 15". But this gauge was useless for waney timber, which had no square corners for the gauge to hook against, and which really had eight sides, or faces—four hewn flat with the axe, and four waney. This difficulty was solved by a method known as "string measure." Around the middle of the waney stick was thrown a special tape-line upon which the inch-marks were four inches apart—four,

because the tape enclosed the four sides of the stick (each with its wane next to it) and averaged them into a single measurement. On this tape, then, a total girth of (say) 72" would read 18", the equivalent of 18" square; halfway between the inch-marks were others reading 17-18 or 18-19, the equivalent of 17" x 18", or 18" x 19" for squared timber. Any reading given by this tape approximated very closely to that which would have been given by the steel gauge, if the same length and cubic content had been made into a square stick.

The Quebec cullers' rules for first-class waney pine in 1871 were: first, the timber should be 15 feet long and up, the average length not less than 22 feet; second, the taper not more than 3 inches in 20 feet of length; third, the waness not more than 1½ inches wide for 17" string measure, 2 to 2½ inches for 18" string, 3 inches for 19", and so on in proportion; fourth, the waness must be uniform from end to end of the stick; fifth, there must be no knot more than an inch in diameter, and no more than six knots in any one stick. It is a little difficult to imagine timber meeting such a high specification; certainly in the 1890's the waness were wider and less regular than as prescribed by these rules.

A letter of March, 1873, from John Storey to Head Office, says that the Quebec exporters consider "19½ to 21 and 22 inches is the most valuable [waney] . . . ships cannot be found to carry much larger sizes." This probably does not mean that bigger timber would not have been welcomed in Britain, but only that Quebec stevedores found it very difficult to load and stow in the little sailing-ships.

Waney was not sold by its average cubic content, like square timber, but by average length, together with the average girth taken by the "string measure" just described. In the 1870's a typical contract for waney pine might call for the timber to be not less than 15 feet long, averaging

22 feet, and 20" average "string." This would mean a proportion of large pieces, say, 40 to 50 feet long and 30" "string," containing 250 cubic feet each.

Next in quantity to oak and pine, in the Island's business, was elm—"rock" elm. The firm dealt little in elm, but forwarded large shipments of it by lake and river to Quebec, for other owners. Some of it came from Canada West, but the great bulk of elm timber, from the 1860's onwards, was made in Michigan and Wisconsin. Escanaba and Green Bay, on the west shore of Lake Michigan, were two of the chief loading places. Forest elms were tall, slim trees—the square timber made from them was longer and of smaller "square" than oak. The chief use of elm was for under-water work, in wooden shipbuilding and wharves, before the days of steel ships and concrete quays; elm was also used, in Britain, for "groynes" along beaches to check erosion. The Quebec buyers used to test the quality of rock elm by loosening a tiny sliver from the corner of a stick of the timber and then pulling it off as far as possible until it broke—the longer the shred, or sliver, the better the quality.

Black walnut was common enough in the forests of Canada West and of Ohio, and it is common enough, as timber, in the Garden Island records from 1850 to 1880 and later—though never in quantities at all approaching those of oak or pine, or even elm. Still, there are often specifications of several hundred pieces; 315 pieces, containing 10,200 cubic feet, as late as 1883. The first settlers in Ohio used to build their rail-fences of walnut—it was more easily split than oak. They sometimes built their barns—frame and weather-boards—of walnut. It is said that when these first farms were abandoned for fresh lands farther west, buyers of them occasionally recovered the whole of their purchase money out of the sale of the black walnut

fences and barns. Walnut seems to have grown less happily, for the timber-maker, than most other woods. Again and again walnut is spoken of in letters as "difficult stuff to handle" or "expensive timber to deal with," meaning perhaps that it was not easy to raft it securely. It was unpopular at Quebec, as cargo, among the stevedores and shipmasters—"they all hate to take walnut," says a Quebec letter of the 1860's, about loading a shipment belonging to the Island firm, for sale in Britain.

Other woods, in the busy years, appear from time to time in the timber records. Hard maple and white ash occur; in Raft No. 16, October, 1866, there was a mixed lot—oak, pine, elm, walnut, hickory, whitewood, cherry. The first two of them, oak and pine, make up almost the whole (and oak alone probably more than three-fourths) of the vast quantities of timber which were handled at Garden Island. The firm's attitude to all other woods is summed up in a letter of Calvin and Breck to Duane Cook, December 10th, 1863: Cook was making oak timber for the Island firm, in Michigan, and he was told to make very little hickory, because it was "a kind of fancy timber only."

2. OAK

The Island firm's purchasing and making of timber began in their own immediate vicinity. In the winter, timber made by settlers as they cleared their land was hauled across the ice to Garden Island from the big islands. This small traffic continued for years, but it was never a regular nor a large source of supply.

Slightly farther afield was "our Waterloo business," as it is spoken of in the records. An account book of 1838 shows that Calvin, Cook and Counter had an agent at the village of Waterloo (now Cataraqui), six miles west of

Kingston on the York Road (now Highway No. 2). This man bought oak and a little pine, from farmers and settlers; it was hauled "from Waterloo to the Cataroquey Creek"—the Little Cataraqui River. Down this stream the timber came in the spring to the bay where the Canada Steamship Lines grain elevator now stands; it is often called Waterloo Bay, in the books. The timber was rafted there, and towed to Garden Island. This business continued for some twenty years; it was never on anything but a small scale, about £1,000 to £2,000 Cy. annually, in small purchases.

There were other local activities in these first years, up to about 1850. Timber was bought at Gananoque—probably pine, and probably rafted there under supervision of a man from Garden Island. The names Jones and Parmenter occur in these dealings. The sale of a piece of land in Pittsburgh township, near Kingston, in November, 1849, seems to show that "the Governor" had been clearing the merchantable timber from it. Timber was bought from men along the Rideau waters—Tett, Chaffey and others—and floated down the Cataraqui River (the larger stream of that name, spanned first by the old wooden Cataraqui Bridge, now by the La Salle causeway). Purchases were also made at various points along the Bay of Quinté.

Almost at once, however, all this near-by business was outstripped by more ambitious ventures—the beginnings of what was called "our western business." A second account-book of 1838, as it were a combined diary and cash-book, seems to show—since it is in the Island's records—that even then the firm was interested in making oak as far west as what is now Haldimand County. The accounts are headed "Seneca, Grand River," and the expenditures are for hay, oats, stores, repairs to sleighs, food, wages—all the usual costs of a timber-shanty. Entries in a third

book, of 1844-1845 (which is also a mixture of diary and accounts) trace the movement of men and horses from Coteau du Lac to Kingston, and on to Oshawa, by steamer. Then follow items of expense incurred in going back into the bush, to Lindsay. Hamilton is mentioned later. The book seems to be a record kept by an agent who was arranging for making timber in various places, but, like the second 1838 book, there is nothing to join it definitely to the Garden Island business except the fact that it is among the records of the firm.

It will be seen at once that the beginnings of these wider operations are difficult to trace. Yet there can be no doubt that, by the middle 1840's, the firm's "western business" was much greater than the little dealings close to Garden Island and Kingston. A single document found in the records is sufficient proof of this.

This document, dated November 2nd, 1847, is an agreement signed by Calvin, Cook and Company, Hiram Cook and Company (really one firm) and four others, to restrict their output of oak timber for the 1848 season. The signers are "well satisfied that too much oak timber has been provided . . . for the Quebec market for several years past"; that "producers . . . take heavy risks without any consideration"; there have been losses. Something must be done, therefore "the undersigned agree each with the others and hereby pledge their honour that they will not get for themselves, nor aid others to get . . . for the coming season . . . more oak timber than the quantity" opposite their respective names. They agree, further, to send to the Quebec market only four-fifths of what they cut, except by "direction and advice" of D. D. Calvin, H. Cook and two others. They also agree not to sell at less than 1/3 Cy. per cubic foot—except, again, by "direction and advice" of the committee of four. The total

production agreed upon was 950,000 cubic feet, in eleven lots; 375,000 cubic feet is the Garden Island share, set opposite the name of their Hamilton house, H. Cook and Company, together with those of four of their subsidiary timber-makers. Finally, "the agreement shall continue at least three years, subject to such changes in quantity and price" as may be agreed upon.

Apart from showing the growth of the Island firm's business—for 375,000 cubic feet of oak at $1/3$ Cy. per foot runs to over £23,000—this agreement to curtail production has a political and general meaning. Almost certainly it had its origin in the lowering of the Baltic timber duties in 1846, and the temporary depression in the Quebec export trade which resulted therefrom. Equally certainly, as will be seen later, overproduction was an almost endemic disease of the timber business.

From 1850 onwards, the records show the growth of the "western business." There is much correspondence with timber-men at Oakville, Trafalgar, Hamilton, Dunnville, Port Dover, Chatham, Amherstburg. The Island firm was buying and making oak (and some pine) directly through several "Joint Accounts"; the three chief ones were with Rial Canfield at Caledonia on the Grand River, with James Dawson at Sombra on the St. Clair River, and with Alpheus Morse at Sandwich on the Detroit River. The agreements between Calvin and Cook and these three men show the method of the firm's operations in the 1850's. First, their respective districts are defined: Canfield is to work "from Morpeth [in what became Kent County] down to the lake [Erie]"; Dawson has the area above the Detroit River; Morse, between Canfield and Dawson, has "from the head of the Detroit River to Morpeth." Otherwise the agreements are identical: the timber-maker is to have a salary of £150; Calvin and Cook are to determine

the quantities of timber he shall buy or make, and no timber may be bought or made except for the Joint Account; Calvin and Cook will accept drafts up to stated amounts; profit or loss is to be shared equally; one year's notice must be given, by either side, of withdrawal from the agreement. The men who did the actual timber-cutting in the woods were very often French Canadians, hired at Quebec, though Glengarry men are mentioned once or twice; in 1853 a number of men came up from Quebec to Garden Island by boat in the autumn, and were sent on from there—in this case, two gangs went to Morse's camp and three to Dawson's, perhaps about forty-five or fifty men in all. A gang was counted upon to "make" about 30,000 cubic feet in a season.

The Joint Account was a joining of credit on one side to production on the other. Canfield, Dawson and Morse were really employees of Calvin and Cook, but they were also partners in a small way—this was the Island firm's method, as has been shown. One uncontrollable risk in these ventures, for the lender, was the weather; a mild winter, with bad "hauling," might mean that the timber was "hung up in the woods," as the phrase went, and that the lender would have to extend longer credit than he had counted upon.

Early in 1854 a short-lived period of extreme optimism is found in Calvin and Cook's letters to their three joint-account men. Gone is the spirit of the 1847 agreement to curtail production. Canfield is told to "push on with all speed, making and hauling." Dawson, March 14th, is to "strain every nerve" to get more and more timber; ". . . Mr. Calvin says he never saw such a good prospect in oak . . . don't be afraid of getting too much." "This is the year to make money," says a letter to Morse, and he is

urged to hurry his work along. "The Governor" was right in his judgment, the price of oak at Quebec in 1854 was from twenty to thirty per cent. higher than in 1853.

The timber was forwarded from Garden Island to the rising Quebec market of 1854, only in the face of special difficulty. The first mention of it is in a letter from Calvin and Cook to D. D. Calvin and Company, which speaks of "the prevailing epidemic" and alleges hopefully that "panic . . . is unwarranted." But, July 19th, "sickness [cholera] has frightened our Canadians . . . wages could not hold them." The unloading of schooners was kept going, the letter says, but on the day of writing there was over 100,000 cubic feet of timber lying loose in the booms at the Island, with more than that amount rafted but not able to be sent off because the men had gone. Within a day's time "the Governor" had secured the help of British soldiers from the garrison at Kingston, but, says a letter to Quebec, "they can't do much." Breck, who wrote the letter, goes on to say that Garden Island "will not be beholden to a set of Canadians another year." (An idle boast—"Canadians," that is to say French Canadians, were a mainstay of the rafting work to the end of the Island story.) "The Governor" was able to send some of the schooners down the river to unload at Clayton, and to do some rafting there, to help the situation. By the end of August the men had returned to work and the rafts began to move down the river once more.

Timber prices at Quebec fell again before the season of 1854 was ended. The reasons for this emerge plainly in a letter of November 10th from Breck to a friend in the trade—" . . . prospects are gloomy for financing and still more gloomy for making sales; the fact is, Berryman, we have all overdone the business . . . large stocks to winter at Quebec . . . money tight . . . prospects bad! bad!!

... keep a tight grip on your purse strings." Letters to the joint-account men are in the same vein: Morse, November 15th, is told to "cramp close" and to get along with the least possible money. Conditions were again those which had prompted the curtailment agreement of 1847, and it is not very surprising that 1855—as has been said already—was a difficult year, financially.

Despite such setbacks, the trade—speaking generally—continued to expand and the prices at Quebec to rise. There was a very large production of timber in Canada West through the 1860's; it came down every driveable river, and the schooners went as far up the rivers as they could, to meet it. Bear Creek, as the Sydenham River was then known, was one of the busiest. Lake Huron was coming into the trade—timber was being shipped from Goderich, for example. And timber was coming in by rail to ports served by the Great Western and the Grand Trunk.

During the 1860's Calvin and Breck moved, or extended, their oak operations from Canada West to the State of Ohio. It is difficult to determine, from the available records, how long the two may have overlapped—probably for only a year or two. In the winter of 1863-1864 Dawson was making 200,000 cubic feet, about 3,000 pieces. (The Island firm would not let him make more, fearing overproduction: "the Governor" was again right, for Quebec prices fell slightly in 1864.) In 1866 Canfield was still making drafts on Calvin and Breck from Jarvis, C. W.; in the same year, production in Ohio had begun. Ohio very soon supplanted Canada West as the source of Calvin and Breck's oak for the Quebec market. This change calls for a word of explanation of the very different conditions, for timber-makers, in the two countries.

In Canada West, Dawson and the others had bought timber from local makers of it, they had bought standing

trees from landowners and made them into timber, they had bought timber cut on Crown lands under license. Only occasionally did they buy lands for the joint accounts. In Ohio, there was no equivalent to the Canadian license system. Purchases of timber cut by others, and of standing trees, were made, as in Canada, but the main source of supply was from lands bought from the State. The American policy was to sell their seemingly unlimited lands outright; for a nominal sum per acre the buyer secured the land, the forest, and the possible minerals—in the phrase of that day, he was given title “from the centre of the earth to the sky.” The timber-man, of course, picked out the most heavily forested land he could find, provided the timber could be got to the water. Calvin and Breck never bought far in advance of their annual needs—another proof of the general feeling that there was no end to the forest. (It may be noted here that timber cut in the United States and exported to Britain via Quebec was not subject to duty on its passage through Canada.)

Alpheus and Frank Aldrich, relatives of “the Governor,” were sent from Garden Island to Ohio; they made their headquarters at Defiance, fifty miles west of Toledo, and began to buy oak-lands in Putnam, Paulding and Henry Counties, on the west border of the State. At first the timber was hauled to the Maumee River and its tributaries, and floated down to Toledo, at the west end of Lake Erie, to be loaded into the schooners. Later it became cheaper, in some cases, to send it to Toledo by rail. The Aldrichs’ operations, in Calvin and Breck’s bookkeeping, were called “Ohio Timber Account.” In 1872, another joint-account was begun, also at Defiance, with F. W. LeSueur in charge. About 1870 the Island firm had extended its oak operations into southern Michigan, by a joint-account with Duane Cook. This was not so extensive as the Ohio work, and

did not last so long. The operations of these three ventures went on under agreements which differed little from the earlier ones covering the work in Canada West. They were on a larger scale than the Canadian had been, and, in Michigan as well as Ohio, they involved buying land. For all three, most of the men were hired in Quebec, as had been done for Canada West.

This need to buy land outright gives, in letters of November, 1872, a clue to the relation of the then remaining forest of Ohio to the timberman's needs. Aldrich Bros. wanted to buy 480 acres of new land; Calvin and Breck said not unless it was "well-timbered," which they set at "48,000 cubic feet from the 480 acres." This means only 100 cubic feet to the acre—or about one and one-half pieces of Quebec timber per acre, at 65 cubic feet average. This would not have been thought very rich timber country, in the south-western part of Canada West, fifteen or twenty years earlier.¹

In 1873 the timber market broke, and the peak of the Quebec export trade had passed. There was almost complete stagnation for a year or two. A letter from the Quebec office to the firm's agents in Britain, October 9th, 1874, said that some timber-men "will not employ a single axe this season." Yet Calvin and Breck kept on making timber—it was not "the Governor's" way to "sack the lot" and cut his own losses.² In the middle 1870's the firm had a million cubic feet of unsold timber, at the Island and at Quebec. By 1878 the firm's two Ohio men were again producing considerable oak—about 350,000 cubic feet—with little prospect of profit.

The situation in Ohio, apart from depression in the Quebec market, was deteriorating. As the country was

¹See p. 35.

²See pp. 33-34.

settled, timber operations became more difficult. The investment in land (many thousands of acres) was serious; it was imperative that the firm should try to stop the drain. In 1879 Aldrich was directed to turn over his work to LeSueur, whose joint-account was carried on, though in 1883-1884 its cut was only 150,000 cubic feet. After D. D. Calvin's death (May, 1884) LeSueur was employed in selling the timber-lands, and in making small quantities of oak timber from them. The joint-account was closed in 1893.

It is interesting to trace, in the records, indications of the ever-widening search for oak timber. Sources which became the regular ones in the last ten or fifteen years of the Island firm (when its timber business was one of transportation only, for other owners) were already being tapped in a small way while the firm's Ohio operations were still active. In the 1870's Calvin and Breck had bought land in Indiana; it had to be bought and held for them by an American friend, for aliens could not own land in that State. In the early 1880's oak was coming to Toledo from Missouri. In 1882 there was some discussion about making oak in Arkansas. In 1885 an American firm asked Calvin and Son to join in operations in the State of Mississippi. They declined. A letter of January 9th, 1886, says that H. A. Calvin was then in West Virginia "where the men are making timber."

All these things point forward to the trade of, say, 1898 to 1914. In those years, though there was still some oak coming from Ohio and Indiana, much came also from West Virginia, Kentucky and Tennessee. This latter was floated down the streams of those States to the Ohio River, and shipped by rail from its right bank—chiefly at Pomeroy, Ohio—across that State to Toledo.

Finally, the quality of the oak went down steadily

during the movements of the trade which have been described. The best of it came from Canada West—much of this oak was so dense and heavy that it sank, and had to be supported by pine. Ohio oak was almost as good, but that from the other States was decidedly inferior.

3. PINE

Pine runs side by side with oak through the story of the Garden Island business, but always in less quantity.

We have seen that a little pine timber was bought near the Island, in the early years. In 1846, Calvin, Cook and Company bought from John Grant 50/100,000 cubic feet of pine, to be delivered to Garden Island. The agreement does not say where the timber was to be made; but it was to be rafted to Quebec and sold, with profit or loss equally shared. In 1847 the firm advanced to Allan Edgar four cents per cubic foot on a lot of timber which was "to run to Belleville," down the Moira River; it was to be rafted and sold on the same terms as the Grant lot of the year before.

These typical purchases of pine, both then and for many years afterwards, were made almost wholly for one reason, namely, that pine was absolutely necessary to float, in the rafting, the oak which was the firm's staple commodity, as well as the oak which they were rafting for other owners. A great deal of this pine was bought, like the Edgar lot of 1847, delivered at the mouths of the rivers falling into the Bay of Quinté; some of it came by schooner from ports farther west, on the lake. All of it, until the 1860's, would be square timber. Indeed, square pine was preferred, for floating oak, down to the end of the business.

Waney pine³ appears first, in the Garden Island records,

³See pp. 36-37.

in a letter from Calvin and Breck to D. D. Calvin and Company, Quebec, July 6th, 1860: "In our next raft we shall probably send Canfield's experimental Board Pine, one dram, about 12,000 [cubic feet]—part of it is now here and looks very well. . . ." The letter does not give the origin of this timber, but it certainly came from Canada West. Now Canfield, at this time, was working on joint-account with Calvin and Breck, and the word "experimental" must mean that Board Pine, or "Waney," would be something new in the Quebec market. Do these things, then, perhaps mean that Canfield, or Calvin and Breck, had invented the waney cut? Or was it first made by the Ottawa River pine-men? It would be very interesting to know, for Board Pine quickly became one of the main components of the Quebec export timber trade.

The northern peninsula of Michigan, which lies between Lake Michigan and the eastern part of Lake Superior, was one of the great sources of waney pine timber from 1870 onwards, into the 1890's. Southern Michigan was then being shorn of its forest by lumbermen with almost incredible speed; when the northern peninsula was attacked, it was not many years until the bush-crews working back from one lake could hear the axes of those who had started in from the other.

Calvin and Breck did not make waney pine to any serious extent until 1871. In the autumn of that year they entered into a joint-account agreement with George and Thomas Dawson to make waney in this northern peninsula of Michigan, on the south shore of Lake Superior. It is a wonderfully concise little document, the clauses which deal with the fact that land had to be bought (as in Ohio) are these: some \$16,000 will be advanced to the Dawsons to buy 8/9,000 acres of pine-lands "for and on account of Calvin and Breck," who will sell to the joint-account the

standing pine thereon, charging the joint-account \$20 per thousand cubic feet of waney timber made, "to such an extent as will cover cost of land less fifty cents per acre, after which the standing growth . . . shall be the property of the joint-account and the land the property of Calvin and Breck." Interest on the purchase money, and taxes on the land, are to be charged to the joint-account until the amount so charged equals the fifty cents per acre.

This Lake Superior waney pine business continued for only eight seasons. The total cut was perhaps one and a half to two million cubic feet; it came out to the lake shore at various points, as far west as Grand Marais. There was big timber to be had, at first; the 1873 cut was over 21" string measure.

Thomas Dawson soon disappears, and George Dawson does not seem to have been a satisfactory partner on joint-account. He did not keep Calvin and Breck fully informed about his work; letters to him in 1876, for example, are full of questions about the condition of his snow-roads in the bush, about the prospect for "driving" on the streams in the spring, and so on. Dawson involved Calvin and Breck in difficulties, and in some expense, by cutting trees, perhaps innocently, beyond the line of the firm's lands. Again, when his 1877-1878 timber reached Garden Island it was at once seen to be "too waney," that is to say, the waness were wider than they should have been.⁴ The Island firm knew, and Dawson must have known, that there would be protests from the buyers when the timber reached Quebec.

In the autumn of 1878, Calvin and Breck sent James Butler to keep an eye on Dawson's work, and to improve the "make" of the timber. H. A. Calvin's diary, September 2nd, 1878, says that "Butler with fifty men left Quebec

⁴See p. 38.

for our Lake Superior shanties this evening." (Butler had been long in the Island firm's service, working under the Quebec agent. In the summer he was at Union Cove, meeting the rafts and preparing the Island firm's timber for export to Britain; he spent the winters in the firm's Ohio oak shanties. He was an expert judge of timber.)

In spite of Butler's presence, though it probably improved the timber-making, the most unpleasant trouble with Dawson's work occurred early in 1879. In the late winter, several of the men who had gone up with Butler arrived back in Quebec seriously frostbitten. One of them died. They alleged that they had been wrongfully paid off by Dawson before the end of the time for which they had been hired, and turned out of his camp. They started to walk the forty-five miles' distance to the railway at Sault Ste. Marie, Michigan, and it was while they were crossing the ice of Taquamenaw Bay, on the west side of the greater Whitefish Bay, that they were frostbitten. (There was nothing extraordinary about this long walk, Dawson had done it many times, even in the dead of winter.)

Some of the men said frankly that they had no claim against D. D. Calvin and Company, by whom they had been engaged for the joint-account, but others of them banded together and brought suit for damages. The suit failed. The firm, however, paid some compensation, on compassionate grounds, to the unfortunates. The whole sorry affair was in the newspapers, and was highly unpleasant for the Island firm, whose Ohio camps had always enjoyed a high reputation for comfort, food and generally good conditions of work.

Not unnaturally, Calvin and Breck called a halt. In July, 1879, they sent LeSueur up from Ohio to buy from Dawson whatever part of his stock was suitable for use in

the oak-woods. Dawson was given a free hand to bargain with LeSueur. At the end of August, Dawson was told to "come down here [Garden Island] with the books . . . we wish to get the accounts closed up."

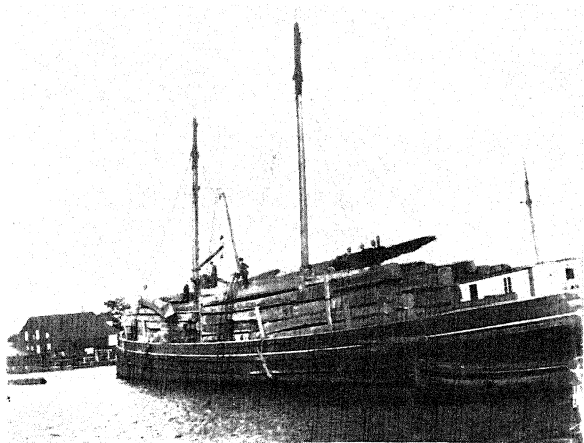
Butler, in September, 1879, proposed to Calvin and Breck that they should advance money to enable him to have waney pine made for them, near Marquette, Michigan. Butler's idea was to buy standing pine, and have it cut, at a price per thousand cubic feet, by local jobbers. Calvin and Breck declined.

The last transaction followed three years later, in 1882, when Calvin and Son sold their Michigan pine lands, 20,995 acres, to two Detroit lumber-men. One of them was Russell A. Alger, who was afterwards Secretary for War in President McKinley's cabinet.

It is a little difficult to conjecture why, in view of the unsatisfactory Dawson affair, the Island firm should have advanced money in 1878, 1879 and 1880 to a French Canadian named Carrier, to assist him in his waney pine operations much farther west—in Minnesota, near Duluth. Perhaps Carrier was known to be a good timber-maker, and in any case the firm, if all went well, would have interest on its advances, the lake freighting and rafting of the timber, as well as a commission on its sale in Quebec. In 1880, Carrier failed to make as much timber as he had expected, and the contracts for it—made by the Island firm in his behalf—could not be filled. The difficulty appears to have been adjusted without loss.

4. LAKE CARRYING

As the points of origin and shipment of the timber receded farther and farther from the rafting-base at Garden Island, the vessels had to follow. Those of the 1840's



LAKE BARGE *Augustus* UNLOADING PINE AT GARDEN ISLAND

A stick of timber from the deck-load can be seen about to fall into the water. The barge is aground; when sufficiently lightened, she would haul across, to the right, and moor to a pier opposite "the capstan house" (hidden) whose winches would unload the timber from her hold, through her bow-ports. At the left is "the old store"; the eighty-foot sheer-legs show between the barge's masts; over her cabin is a mast of another lake vessel; at the barge's stern, under her "counter," floats her "yawl-boat."

were diminutive craft indeed; of the few then owned by the Island firm, the schooner *Minerva Cook* carried about 6,000 cubic feet of oak (200 tons) and the brig *William Penn* 7,000 cubic feet (220 tons). Gradually they increased in size; the average of seventy-four cargoes unloaded at Garden Island in 1857 was a little over 10,000 cubic feet. Among the largest of the 1857 carriers were the Island-built-and-owned brigantine *Liverpool* and the barque *London*—12,500 and 15,300 cubic feet, respectively.

It must here be pointed out again that the Island firm, during its years of timber-making, received and rafted a great deal of timber for other owners. Most of the vessels which came to discharge timber, too, were owned by other people.

But of the Garden Island fleet—by about 1870 the *London*, which was considered a huge vessel in her day, had been exceeded in size by the *Oriental*, the *Sweden*, the *Denmark*, and others. During the 1870's there were launched from the Island shipyard the *Siberia*, the *Prussia*, the *Bavaria*, the *Norway*. These seven vessels were of capacity varying from 23,000 to 26,000 cubic feet of timber, and all were schooner-rigged; the square-rig had almost disappeared from the Lakes by this time. The *Denmark* and *Oriental* were two-masters, the others three-masters.

It was said that a Garden Island schooner could be recognized at a glance by the weight of her spars, and especially by the long "doublings" between lower masts and topmasts. Their heavy rig was in keeping with their construction. They were very sturdily built, for timber was not loaded or discharged without hard knocks. A big piece of oak might weigh two tons or more—a formidable and uncompromising object, whether dragged through stern-ports, hoisted over-side, or hauled along the deck.

Horses, for many years, supplied the necessary power, walking round and round a capstan, on deck. From about 1885, these horses gave way to steam—a small boiler driving deck-winches.

Horses also hauled the schooners through the Welland Canal. A letter from Calvin and Breck, January 9th, 1866, tells Humphrey Julian of Port Dalhousie that they will use his horses for their schooners during the coming season: for the trip up and down the canal the rates were \$40 and \$50 for the smaller craft and \$60 for the larger—the *Oriental*, the *Denmark* and “our new vessel.”

These timber-vessels were admirably adapted to their work—naturally so, for the latest of them were the result of long experience. They left Garden Island as soon as the ice had gone, in April or early in May; they often made a trip to Hamilton or Toronto, before the Welland Canal was open. Later, they went on to the Lake Erie rivers—the Grand and the Thames—or perhaps to Lake St. Clair to go up Bear Creek (the Sydenham River). After these “Canada West” days there came the oak trade out of Toledo, and almost at the same time the schooners had to go up into Lakes Huron, Michigan and Superior.

For these longer trips the sailing vessels had one grave defect—they were slow. Days of calm, days of head winds, there had always been, of course. But the greatest difficulty was the short season of navigation on the Lakes. It became evident that the firm must either have twice as many schooners, or else the existing vessels—six of them, in the 1870’s—must somehow make twice as many trips, or better.

Towing was the obvious answer, for the Island firm had been towing on the river from the 1840’s⁵, and to a less extent on Lake Ontario.⁶ The records show that from the

⁵See Chap. V, 2.

⁶See Chap. V, 5.

early 1870's onwards, towing (even on Lake Ontario) gained rapidly upon sailing: for example, a letter of April 30th, 1874, says, "Our vessels have left here in tow of the *Wellington*, for Port Dalhousie and Hamilton." Tugs were chartered to tow the vessels up Lake Erie, and it was not long until the schooners' topmasts were "sent down" and they used sail chiefly to help the towing steamer when the wind suited—though of course they could still sail, if need were, without their topsails. Soon they were being towed all the way to Sault Ste. Marie, and on into Lake Superior to load Dawson's pine. In 1882 and 1883, the *Chieftain*, one of the firm's side-wheel river steamers, towed the Island vessels all the way to Lake Superior—tall stories used to be told of her adventures on the Lakes, for whose rougher weather she was not so well suited as her consorts.

To do their lake towing more satisfactorily, Calvin and Son laid down in the Island shipyard, in 1881, their first lake steamer, the propeller *D. D. Calvin*. She was launched in 1883, had her boilers and engines installed at Cleveland, Ohio, and in 1884 began her long years of lake towing and timber-carrying. The *Calvin* had more than twice the *Chieftain's* engine power and carried as well a bigger load of timber than any of the schooner-barges. Her timber ports were in her bow—of necessity, her engines being aft—and this fashion was followed in later vessels. The schooners had had their ports aft.

The next step was to build bigger barges; the *Valencia*, *Ceylon* and *Augustus* were built in turn—each of the latter two carried about 55,000 cubic feet of timber. A second steamer, the *Armenia*, was bought. These five vessels carried nearly twice as much timber as the six schooners of 1875-1883, and could do it in not much more than half the time. Larger steamers were afterwards built, the *India* and the *Simla*. It will be seen that the firm's greatest

lake-carrying capacity did not exist in the same years as its own greatest timber production, but later, at a time when the business had become, almost wholly, forwarding for other owners.

“Lake shore loading,” as it was called, was a special part of the Island firm’s timber carrying. It began in the 1870’s with the making of pine in the northern peninsula of Michigan. Much of the timber was cut in districts remote from settlement, from which delivery to a port was either too costly or physically impossible, and from which it could not be river-driven. It had to be brought to the open lake shore, where often enough there was little or no shelter for the loading vessels. Usually it was hauled over snow-roads and left on skids, on the beach, ready to be rolled down into the water. Occasionally it was left at the top of a high, bold shore, and allowed to go down a slide to the water. There were stories—which lost nothing in the telling—of narrow escapes from sticks which plunged into the water and leaped out again. No doubt there were cases of that kind.

There might be, let us say, 150,000 cubic feet of pine to be loaded at half-a-dozen places along the north shore of Lake Michigan. The Island vessels would have had instructions to look for the first of them so many miles west of a certain landmark, or east of some lighthouse. From this point of departure, the timber would be found—seen through glasses, perhaps, as it gave back the sunlight. Then, with shortened tow-lines, and sounding as they went, the vessels—steamer and barges—would feel their way in, anchoring as close to shore as was prudent.

Boats were lowered, and long “lake shore lines” run from vessel to beach. The timber-men would set the timber afloat, the vessel-men then “dogged” it together, a

few pieces at a time. To reach their vessels, they stood or sat on each little lot of timber and hauled it out by means of the "lake shore line." It was a long, slow job of work, and the men were often soaking wet all day long.

The technique of loading a timber-vessel was too complicated to be made clear by the written word alone—many diagrams, and knowledge of certain tools specially developed for the work, would be needed. Loading and stowing several hundred heavy, slippery pieces of timber was a unique form of hard work, bearing no resemblance whatever to the mechanical loading of the usual bulk cargo of the Great Lakes—wheat, coal, iron ore.

In theory, this loading technique, first through the ports into the hold, then over-side to be piled on deck, was the same whether on the lake shore or in a quiet harbour. In actual practice, it was much more difficult on the lake shore, not only because the water was seldom calm, but also because the steamer captain—who was responsible for the safety of both steamer and barges—must continually work with one eye on the weather. Moreover, the captain (and through him the firm) was responsible for the safety of the timber as soon as it left the beach. Nice judgment was needed in deciding when to carry on and when to get up the anchors and stand off-shore till the weather was again fit for the job of "lake shore loading"—its difficulties are perhaps sufficiently indicated by the fact that the timber-owner often paid half the cost of it, to the Island firm, in addition to the regular freight-rate.

"All and sundry the dangers of navigation," as they are summed up in Bills of Lading, constantly intrude upon the story of Lake navigation. There were accidents of all degrees, from small damage, to foundering with loss of life, in the gales of spring and autumn, or (much less often) in collisions.

On November 30th, 1850, Captain Simon Johnston of the little schooner *Dexter Calvin* made a notarial protest on his arrival in Kingston—he had lost his deckload of flour in barrels, on the trip from Port Dalhousie. Twenty-seven hogs, however, also carried on deck, had been saved.

Sometimes it was a schooner putting back to the Island with a broken boom or a topmast carried away, with loss of canvas. A curiously frequent small accident was “grounding on the Snake”—Snake Island, in Kingston harbour.

There were three serious accidents to the Island’s schooners, all on Lake Ontario; the *Sweden* foundered in 1877, the *Norway* was dismasted off False Duck Island in 1880, the *Bavaria* went ashore on Simcoe Island in 1889—all the crew were lost, in each case. The *Norway* and *Bavaria* were little damaged; indeed the loss of life from the *Bavaria* may have been due to panic—who knows?

Canalling was a constant hazard. A slight error in judgment, a mistaken signal, and the fabric of the canal suffered. In 1885, an Island vessel struck a swing-bridge; in 1886, some lock-gates were carried away; the bills for damages were not small.

Year in, year out, however, the firm’s schooners, steamers and barges were well handled. If such a statement could be prepared, it would probably show that for miles travelled and for necessary risks faced, the Island vessels had a very good record—even though there were nine collisions in one unhappy summer of the middle 1890’s.

Lake freight rates on timber, from the beginning of the Island story, are given in dollars per thousand cubic feet, though dollars did not replace pounds “currency,” officially, until January 1st, 1858. The records of the early years are incomplete, but \$40 per thousand was paid in 1846

for carrying oak from Hamilton to Garden Island. In 1851 the rates on oak were \$90 from Lake St. Clair, \$80 from the Detroit River (\$75 from below Riendeau) and \$65 from the Lake Erie shore below Long Point—all to Garden Island.

Rates on oak rose about ten per cent. in the next twenty years. In the 1870's they were \$100 from Lake St. Clair and \$90 from Toledo. From the 1880's onward the rates fell, as might be expected, with the increased size of the timber vessels, and their better speed. Oak from Toledo paid \$75 in 1882, \$60 in 1890, and \$55 in 1894. In the declining years of the business, from 1900, the rate fell to \$50, then to \$45 and even as low as \$40.

Rates for carrying pine were always lower than those for oak, because it was more easily and quickly handled. Pine, as has been said already, was not prominent in the Island work until the 1870's. In 1877, the rate on pine from the west shore of Lake Huron to Garden Island was \$75, and from the north shore, near Sault Ste. Marie, \$85. In 1881, \$105 was paid from Grand Marais on the south shore of Lake Superior—four years later it had fallen to \$75. The rate from Lake Huron and from Georgian Bay, in 1890, was \$55. In the last years, from about 1898, the rate from Lake Superior was only \$50, and in one or two cases \$47.50—less than half the rate of 1881.

Lake cargoes westward, it will have been noted, are absent from the timber trade proper. And indeed except in the early days⁷, and in the last years when the business had become one of general forwarding, the firm's lake-carrying was almost wholly down-bound; up-bound vessels were usually "light."

An interesting exception to this rule, in the middle

⁷See pp. 23.

years, was the carrying of ice. In mild winters the growing towns along the south shore of Lake Erie sometimes found themselves facing an ice famine, and sought supplies elsewhere. The first instance of this traffic, in the Island records, is in March, 1876, when H. A. Calvin sold a schooner-load of ice—about 500 tons—in Toledo. Early in 1878, four of the schooners were loaded with ice as they lay frozen in behind Garden Island.

A letter of 1880 says that in that year there were upwards of fifty vessels so loaded, in various Lake Ontario harbours, waiting for the opening of navigation to carry their ice to Lake Erie ports. The last year of this intermittent business was about 1906, after that time “artificial” ice production made it unnecessary.

Lastly, a word must be said about the offers and suggestions of trading with lake schooners on salt water, which occur at irregular intervals through the records. Nothing came of them. The only ocean trading which the Island firm ever did was done with their own barque, the *Garden Island*,⁸ a true salt-water vessel. Yet these offers and questions are interesting; they show that there has always been a feeling that lake vessels might go out to sea. A good many actually went; one at least, the American schooner *Cressington* (her owners are not named), left Garden Island for England, in October, 1863.

In 1848 Calvin and Cook were asked to join in a venture to buy flour and send it over to Britain for sale, in two vessels, one of which was to be the Island firm’s brigantine *Liverpool*. Their reply was that flour was too dear, and they expected the price to break.

In 1876, Calvin and Breck had a letter from R. C. Adams and Company, shipping agents in Montreal, who were

⁸See note, p. 34.

trying to charter "vessels to carry refined petroleum from Cleveland, Ohio, direct to Antwerp or Bremen." The next year, Charles Ribighini of Petrolia offered to load the *Siberia* with refined petroleum at Sarnia, Port Stanley or Hamilton, for Europe—he did not name a port of discharge but the Mediterranean was indicated by the fact that he said he had another vessel going there. In 1879, Calvin and Breck asked R. C. Adams and Company whether a lake schooner could be profitably employed in carrying coal from Nova Scotia to Montreal.

In July, 1879, H. A. Calvin wrote from the Quebec office to Garden Island, suggesting that the *Prussia* might be sent with sawn lumber to South America, thence to England, and bring coal to the St. Lawrence. "It is a voyage," he wrote, "which other lake schooners have taken and are now taking." What might have come of such a venture can only be conjectured.

5. RAFTING

Rafting was the most colourful and picturesque part of the timber's progress from the Lake ports to the Quebec market. Much has been written about "the bush"—the hard work of going back into the wilderness, setting up the shanty, cutting the trees, hauling the timber to the streams and driving it down them—and the bushmen's sprees after the enforced restraint of the long winter. Lake freighting, in the days of sail, had its own special dangers and excitements; even today the sight of a great steel steamer sheltering at anchor in Kingston harbour until the November gale moderates, or a steamer coming in off the lake, covered with ice, are reminders that lake navigation is not without risks. But neither in the bush nor on the lakes were the dangers constant.

The St. Lawrence rafts, on the other hand, met the challenge of the great river—the rapids, the treacherous weather of Lake St. Peter, the tide-rips above Quebec—as part of the day's work, spring, summer and autumn, year in and year out. It is true that not much timber was lost, nor many lives. Yet these facts serve to show the sound workmanship with which the huge, unwieldy rafts were put together, and the skill and judgment which shepherded them through the dangers they must face, rather than that long experience had made it all easy. For it had not.

The rafting, first to last, was the mainstay of the Island business. Raft Account made money, whether or not the timber in the rafts was sold at a profit when it reached Quebec. This resulted partly from the large amounts of timber which were brought to the Island by different makers—any business operates more profitably at or near its full capacity. But it grew also out of the fact that, though the Island firm had to face rafting competitors (except in its last few years), there was little or no competition from vessels or from the railways, for the Quebec buyers preferred that the timber should reach them by raft.

Little is known of the origin and evolution of the methods followed for so many years in the construction of the Garden Island rafts. This at least is certain, that these methods had achieved in the rafts a nice balance between temporary and permanent—between too little and too great strength. The raft's normal life, from its construction at the Island to its breaking up at Quebec, was never more than about a month, and in the later years only a week or two. Obviously this meant quick and economical construction, yet the raft had to be strong enough to resist all the usual shocks and strains of the trip down the river, with something in reserve for emergencies.

The materials for the wooden framework of the rafts, as they were built forty years ago, were very simple. They were: "floats," 42' long, 7" diameter at the top and flatted to 7" thickness at the butt; traverses, 32' long, 3" or 4" at the top, not flatted; "pickets," or pins, about 1½" diameter. Large quantities of floats and traverses were brought to the Island during the winter over the ice, and in the spring by water. In the busy years, the firm often "put in a shanty" in the Rideau Lakes area (as would be done for timber-making) to cut floats and traverses; but usually they were provided by others, under contract. Four to five thousand floats and twenty to thirty thousand traverses were needed for an average summer's rafting. Various woods were acceptable—pine, tamarac, ash, elm, hemlock.

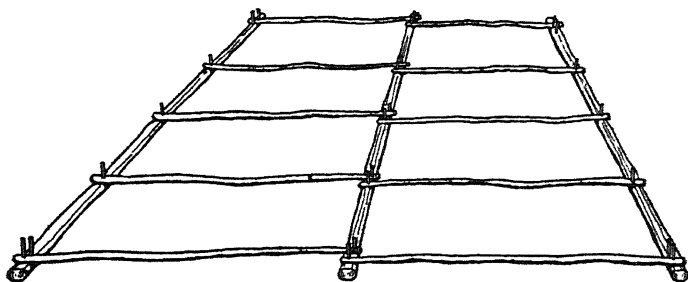


DIAGRAM OF A "CRIB"

Three floats and ten traverses went to the making of a "crib." The floats were lengthwise of the crib, the traverses across them; the outside floats were bored at ten-foot intervals; the middle one twice at each ten-foot interval, the two holes being about ten inches apart. The traverses were bored near each end, the holes being thirty feet apart. At each crossing of float and traverse (the

traverse always on top) a stout hardwood picket (pin) was driven through these holes, joining float and traverse solidly together. A finished crib, then, was an open framework, two traverse-lengths wide (sixty feet) and one float-length long (forty-two feet). A succession of these cribs, joined to one another by short straps bored to go over the corner pickets of adjacent cribs, formed the framework of the "dram" or unit of the raft. A dram would thus be sixty feet wide, with its length varying from two hundred and fifty to three hundred feet, according to the number of cribs used.

The sticks of timber were pushed into the first crib (under the traverses and lying parallel to the floats) with their ends forming a neat row beyond the first traverse, and beyond the ends of the floats. This made the bow of the dram. A small traverse—called a "false" traverse—was then laid down in the opening between the inner ends of the fastened traverses, lying parallel with them and across the sticks of timber. Half the length of the "false" traverse lay on each side of the centre float. The space for the "false" traverse was provided by the ten-inch distance between the picket holes in the centre float, already spoken of; the purpose of the "false" traverse was simply to strengthen the dram down through the centre.

At every crossing of timber and traverses—or traverse plus "false" traverse, down the middle of the dram—a withe (a birch sapling softened by twisting and rolling) was put around them and tightened up, like a tourniquet, with a stiff pole called a toggle. The toggle was brought down close to the traverse, and included into the tying of the next withe—after that it was cut off and the remainder used again. A toggle would tie three or four withes. There would be many hundreds of these tyings in a dram, binding framework and timber together; about 150,000

withes and 40,000 toggles would be needed for a season of rafting. Looking along the length of a finished dram of oak, you saw the long parallel rows of sticks crossed every ten feet by the rough line of the traverses with their continuous wrapping of tightly tied withes which held the timber snugly to them.

A dram of oak was left thus, one tier deep only, and the timber was just awash in quiet water—enough pine was rafted with it to give it sufficient buoyancy to be safe in the rapids.

Pine and elm timber, however, were always rafted three tiers deep, because of their greater buoyancy. The bottom tier, rafted as just described, had a cross-tier hauled up upon it (by steam power) at right angles to the bottom tier, and lying in the spaces between the traverses. The sticks in the cross-tier were not withed down, and their ends did not reach to the sides of the dram. Space was left for “stringers,” which were pieces of timber hauled lengthwise of the dram up upon the traverses and withed down to them; the “stringers” thus enclosed, and prevented the possible escape of, the un-withed cross tier in rough weather or in the rapids. The third or top tier was then hauled on, again by steam power; it lay lengthwise of the dram. This top tier was not often complete, but in three parts, or strips—perhaps five rows of sticks down the middle of the dram, and two or three rows near each side. They were not fastened, but remained in place by their own weight.

The firm’s timber measurer was at his special job, as the rafting work went on. The dimensions of every piece were entered in his book; later the cubic contents—taken from printed tables—were added, and a specification of each dram made up.

This very brief description of the work of “rafting up” timber has taken no account of the human side, the men’s

part in it. Many and varied skills were needed, even though they were not those of expert craftsmen. The timber—let us say pine—floated loose in the booms as it was unloaded from the lake vessels. Cribbs were brought to it to be “stowed” and withed and made into drams. First of all, men walking over the loose timber, in their spiked boots, sorted out with their long pike-poles (which were like twenty-foot boat-hooks with sharp point and hook) the longer, thinner pieces to make the bottom tier—which looked easy enough as the sure-footed raftsman pushed the heavy pieces about to secure the one he wanted for a certain position. But the greenhorn would have been hard put to it merely to maintain his balance, even with the pike-pole to help him. Withing, too, was more skilled than it appeared. Then came the cross-tier; this was a matter of rapid judgment of lengths, among the short pieces—each row of them, across the first tier, had to be very nearly the same total length, whatever the lengths of the pieces composing it. The top tier was always made of the biggest timber. The appearance of the finished drams varied not a little with the varying skill of the men in charge of putting them together.

There was a second human element in the rafting which was done at Garden Island, for the raftsmen were only carrying out orders, under supervision. The Island firm strove to raft timber so that it “spoke for itself,” or, in other words, so that its appearance fairly indicated its quality. Oak was kept wet—the finished drams, as already said, were awash in still water. But the firm turned a deaf ear to all suggestions of tricky rafting—to a pine maker of the 1870’s, for instance, who asked to have each piece of his timber rafted with its “lined side up”; to show its best-made corners. The result of this policy comes out very clearly in a letter to the Island firm from their Quebec

office, in the 1880's. The Quebec agent had been summoned to go over some drams of pine with the maker of the timber and the Quebec buyer of it. The maker complained that there were "too many rough pieces to be seen," whereupon the buyer turned to him and said that "if the Calvins had not rafted the timber, no one would buy it without examination"—in other words, the buyer knew, from his experience of the Island's rafting, that when the drams were broken up there would be neither more nor fewer "rough pieces" than were to be expected from the appearance of the drams while still intact.

In the 1840's an average dram of oak contained about 8,000 cubic feet, the number of pieces would be from 120 to 130, according to the size of the timber. For about thirty-five years this small dram continued to be the rule; it was then increased, in both width and length. In 1880, the average of fifteen oak drams was 154 pieces, containing about 9,500 cubic feet. From the 1890's onwards, the average size was 200 pieces, 12/13,000 cubic feet. The increased size lowered the cost of rafting the timber, and still more the cost of the trip down the river, for it was found that no more men were needed, in the rapids, for the bigger dram.

A similar increase in size was made in the three-tier pine drams, though these have not so long a history. Those of the 1870's and 1880's contained some 250 pieces, about 18/22,000 cubic feet—in the 1900's a big pine dram might be nearly double this size, perhaps as many as 650 pieces, containing some 40,000 cubic feet. As with oak, the bigger dram was found less costly (per thousand cubic feet), both to make up and in running the river.

The number of rafts sent from Garden Island to Quebec varied surprisingly little over a long period of years. At

first, of course, there were not very many—nine in 1851—but from the middle 1860's to the 1900's there were just over or just under twenty rafts each season. Their size, however, did vary; an average raft of the 1870's might contain twelve to sixteen drams—occasionally more. The average raft of the 1890's or 1900's would contain only five to seven drams—but, as has been shown, the drams were larger. As a comparison: the twenty-one rafts which left Garden Island in 1870 contained about 3,500,000 cubic feet; the eighteen rafts of 1906 only about 1,500,000. The average size had shrunk by about one-half.

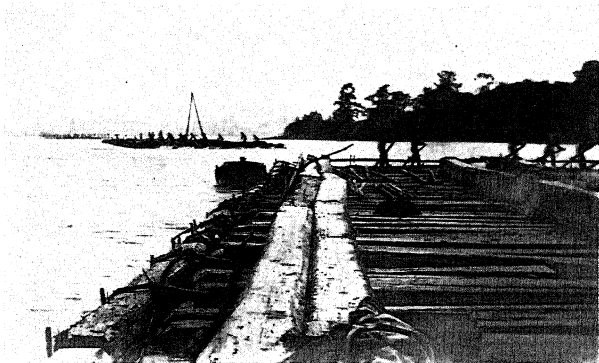
The rafts' time from Garden Island to Quebec also decreased with the years, for two reasons. First, the smaller rafts of the later years took less time to run the rapids—it was not unusual for a big raft of the 1860's or 1870's to take two days making the Coteau run, ten drams each day, perhaps. Second, and chiefly, the rafts, as time went on, were more and more towed by the firm's side-wheel river tugs. Above Montreal, in the earliest years, they were not towed at all, except in some special emergency, but were carried down by the current of the river, aided by sails when the wind was favourable. Regular towing, even from Garden Island to Prescott, did not begin until about the 1870's.

From Montreal to Quebec, however, towing was the rule, from the 1840's onwards. One result of this was that the men on rafts which had not this aid—the river was full of them, long ago—used to attach themselves to the Island rafts, especially at night, protesting volubly when they were cut adrift. Their promises to pay had been found worthless.

In 1855-1870 the usual time for the whole journey was about twenty days; a letter of 1876 says, "It generally



"STOWING" FIRST TIER OF A PINE DRAM



DRAMS SEPARATED OUT ABOVE A RAPID

takes about two weeks for a raft to run from Garden Island to Quebec"; from the late 1880's onwards the usual time was six or seven days. The "record trips" were made in 1897 when five rafts made the run under five days—from four days sixteen hours to four days four hours.

A special effort, at the end of that busy summer of 1897, resulted in a lake-and-river record. A small quantity of oak timber, 25,000 cubic feet, was wanted in Quebec on a certain day, for shipment to Britain. It was loaded at Toledo, brought to the Island, rafted into two drums, and delivered at Quebec, all within eleven days.

The rates of river freight on timber, from Garden Island to Quebec, may be seen in the firm's printed schedule, reproduced herein. It is odd that pine is not specifically mentioned, which must mean that it is included under "White Wood." This schedule is of the 1870's, and it is almost certain that the rates it sets out had then been in force for twenty years or more; that is, river freights had not risen with the rise in lake freights during those years, which was noted in the previous section. Nor did they fall, in the later years, as much as lake freights. In the closing period of the rafting, from the 1890's onwards, the rates from Garden Island to Quebec were \$40 per 1,000 cubic feet on oak, and \$25 on pine.

Quebec was always the main point of delivery, but small deliveries at Lachine (for Montreal) were not uncommon up to about 1880. A letter from Calvin and Breck to a timber-maker at Wallaceburg, C.W., in 1862, says, "Our rates for delivering timber at Lachine are the same as for Quebec. We cannot deliver it at Montreal Basin, but we will raft it so the drum can be cut down the middle from end to end at Lachine, so you can get it taken through the

Canal." The cost of the special rafting, and of the delivery into Lachine, were apparently about equal to the cost of the run from Lachine to Quebec.

RATES AND CONDITIONS

On which the within mentioned property is to be forwarded by us per Raft, from here to Quebec, are as follows, viz :—

SQUARE TIMBER.

Oak, Walnut, Hickory, Maple and	}	\$50 per 1000 cubic feet.
Cherry.....		
Elm and White Wood,.....		\$30 do. do. do.

STAVES.

Standards,.....	\$26 per Mille.
West Indias,.....	\$ 9 do. do.

We guaranteeing against dangers of River navigation as follows.—
In case of any thus lost we to pay for at

\$220 per 1000 Cubic feet for Oak, Walnut, Hickory, Maple & Cherry.
\$175 do. do. do. do. Elm and White Wood.
\$150 do. Mille for Standard Staves.
\$ 40 do. do. do. West India do.

GARDEN ISLAND, C.W.

CALVIN & BRECK.

BACK OF RECEIPT-FORM FOR TIMBER CARGOES

The departure of a raft from Garden Island was an event unstaled by custom. The summer was short, time pressed, the rapids would once more test rafting and raftsmen, ships must be loaded at Quebec for Britain. And the vessels were bringing more timber down the Lakes, the booms at the Island must be clear—the raft shall start this evening, then, even though at noon it may seem impossible.

As soon as the first dram was finished, the cook and his helper began to build on it a cabin of rough pine boards

("culls") in which they would live with the foremen. It contained four bunks, the cook-stove, and a bench-table where meals were served. Until the most recent years, there was also an outdoor "cookerie" where salt pork and potatoes were boiled—in the last years of smaller rafts and fewer men, the stove sufficed. On another dram was built a second cabin, containing only bunks, eight of them, for the crew.

While shelter and food—ample but simple—were being provided, the rest of the "kit" was brought on board the raft. Most of it was gear which would be brought back to the Island when the raft reached Quebec—anchor, chains, windlass, sails, rope, axes, pike-poles, augers, blankets, cook-stove, two boats (one large, for fifteen men or so, and a smaller one) and many raft-oars, about twenty-five for each dram. These oars were cut from traverses and were thus about thirty feet long—they were used, at bow and stern, to steer the drams through the rapids. Along with this permanent gear, the raft was supplied with spare withes, toggles and all the other materials which might be needed for repairs, as well as special pickets, and traverses, for building the rowlocks for the long steering-oars.⁹

The raft's progress down the St. Lawrence to Montreal may be divided into some half-dozen parts; the quiet trip of seventy miles to Prescott, the run through the Galops and Rapide Plat, the quiet but quick-flowing stretch ending with the Long Sault rapids, down Lake St. Francis, the "Coteau run" of four rapids—Coteau, Cedars, Split Rock and Cascades¹⁰—down Lake St. Louis and through the Lachine rapids.

The raft ran the first two rapids as a unit; for the others the drams were separated out and went through one after

⁹See also Glover and Calvin, *A Corner of Empire*, Cambridge, 1937, pp. 73-87.

¹⁰The "Coteau Run" has been blocked by power-dams since 1941.

another, the foreman's "cabin dram" leading. Pilots and extra men were taken on board three times; an English-speaking lot for the Long Sault, Frenchmen for the Coteau run, French and Indians (halfbreeds) for Lachine.

To go through the rapids on a dram of timber was very different from seeing them as a passenger on the deck of a steamer. On the timber you were almost at water level; in the main "pitch" (drop) of Lachine rapids, for instance, the dram bent to the shape of the great waves, the water boiled over its bow, the great sticks of timber bumped heavily against one another, the tremendous force and speed of the rapids were felt and seen close at hand. Indeed, as one competent observer wrote—he had been a guest on a raft from Garden Island to Quebec—the rapids "are about as easily pictured as an earthquake."

Unless the raft happened to run Lachine early in the morning, it was stopped at Montreal until the following day, because a good many hours of daylight were needed to take it safely down the next stretch of the river. The stopping-place was in "the eddy below Hochelaga," as an old letter puts it; the actual spot is where the Canadian Vickers plant now stands, and the "eddy" has become the launching-and-fitting-out basin of that company's ship-building division.

Leaving Montreal, the raft passed Pointe aux Trembles, Varennes, Vercheres, Berthier, Sorel, and went on through the islands to the head of Lake St. Peter. The last safe place to stop, before going out on the Lake, was L'anse à bateau, where the rafts were occasionally delayed for days at a time by bad weather. Lake St. Peter, twenty-three miles long and seven miles wide, is a shallow lake and quickly "raises a sea" even in moderate winds—many a raft has been wrecked or damaged while "on the Lake." At Three Rivers, just below Lake St. Peter, the tide is first

met—its rise there is negligible, and the effect of the flood in checking the raft's progress was not felt until further down the river. Passing Batiscan, Champlain and Platon, steamer and raft came out into the wider waters which end in the narrow spot—the narrowest in the whole river—where the Quebec Bridge now stands. This open water was the last hazard before reaching the timber coves, and, as will be shown,¹¹ it was sometimes the scene of serious accident to the rafts.

The risks taken in running the rafts down the St. Lawrence were very much the same throughout the history of the Garden Island firm. A letter to Quebec office, from the first of the river-foremen, François Landrigg, on June 9th, 1843, might have been written by Julien Giroux or Antoine Menard in the 1860's, by Louis Hamel or Alexandre Lalonde in the 1880's, or even by the last of their line Aimé Guérin¹², in the early 1900's. Landrigg reports that he had reached Montreal with his raft "en très bonne ordre, sans avoir eu de malheur dans les rapides, et sans avoir échoué, ni perdu un morceau de bois." Almost all the risks, as far down as Montreal at any rate, are there—trouble in the rapids, getting drams aground, loss of timber. The only difference is that Landrigg had no bridges to contend with, Guérin had the piers of four to avoid—at Cornwall, Coteau, Lachine and the Victoria Bridge. And a very dangerous hazard they were.

The same scenes of accident occur again and again in the records; Crab Island shoals above Cornwall, "the big rock" in the Cedars rapids, the Laprairie shoals below Lachine rapids, the piers of Victoria Bridge, Lake St. Peter, Baie Ste. Croix. All in all, however, serious acci-

¹¹See pp. 103-104.

¹²Glover and Calvin, *A Corner of Empire*, Cambridge, 1937, pp. 87-90.

dents and serious losses of timber were very few; the constant small losses were a greater difficulty. These occurred from minor accidents such as the corner of a dram hitting a submerged rock, or from pieces of oak working loose in the rapids. And there was constant theft, both of timber found floating loose, and of timber cut from its withings at night and taken away. Letters to Quebec office from Calvin and Cook (1853) show the firm's conviction that plank made from lost and stolen timber was being built into new scows and barges all along the river. A letter of 1871 from A. Davidson, agent at Montreal, says that he believed there was a steady market for stolen timber in Sorel. The records show that stolen timber was a peculiarly exasperating difficulty—when the owners' marks had been defaced or removed, how could the identity of the timber be sworn to, even though its origin and ownership were beyond all reasonable doubt? Again, a certain type of lawyer was only too ready to back up the extravagant salvage claims made by supposedly honest holders of loose timber. "We take our timber where we find it," Calvin and Son once wrote to a man who was caught in possession of some pieces which he said he had bought. This was in 1883, the firm had had too long experience of such stories.

It follows, in view of these dangers and difficulties, that the raft foremen, as well as the captains of the towing steamers, had to be experienced, resolute, and (above all) loyal. There was no such thing as "over-time" in their work. A steamer captain's letter of 1885, reporting trouble with bad weather above Quebec, shows the attitude expected of them—"La marée commençait à descendre, et le vent nord est soufflé fort. Alors j'ai pris sur moi de . . .," and he goes on to describe the measures he took, on his own

responsibility. He might have judged wrongly, but he faced his job. In 1867, Calvin and Breck declined to give any of their raft-towing to a certain Quebec firm, telling them plainly that they must have their own men, "who will stick to the raft in danger."

As the rafts themselves had to withstand many shocks and strains, so the men who ran them down the great river had come to know all that could be known about their picturesque and often dangerous work, and they took a justifiable pride in their own skill.

6. RAFTSMEN

There is no record that "the Governor" had French Canadians or Indians working for him at Clayton, N.Y., in the early years before he moved to Garden Island. But it is unlikely that he could have taken his timber down the river, especially down the rapids, without skilled help from men who were familiar with running timber.

It is clear, however, that from the beginning of the Island business, the permanent raftsmen at Garden Island were French, and the men who took the rafts down the river were either French or Indians (halfbreeds). It is clear, too, that with one exception—a man named George Brush—all the raft foremen were French, as were also their seconds-in-command and the senior men. The "Indians" were the rank-and-file, so to speak—or perhaps more correctly "the lower deck."

This predominance of the French Canadian, in the actual work of rafting on the St. Lawrence, doubtless has two sources. First, he had been settled along the river, as far up as Coteau, for many generations, and as Parkman says, "forest, lake and river were his true school." Second, the incoming "American," though in many cases an expert

timber-cutter, was not, generally speaking, so accustomed to swift water as the French Canadian—in New England, to quote Parkman again, “The sea was his field of action.” But perhaps it is unnecessary to search for reasons. Nothing could be more natural, after all, than that the first timber-makers should enlist the aid of the men who knew the river; just as in later years their successors employed as timber-cutters in the winter months the same men who spent their summers dressing timber in the coves at Quebec.

The raftsmen, especially the foremen, have been shown at their work. Their ability and industry were seldom in question, but there were occasional lapses. Drink was the usual trouble. Race prejudice enters into an Island story about the honesty of the raft foremen. One of the office staff, an Irish Protestant, is supposed to have cut a nick in his high stool for each foreman who had proved himself to be above suspicion. There were never more than two nicks, so the story ran, and one of them had to be smoothed out. Broad and long the story is unfair—the rafting could not have prospered as it did for so many years without a succession of sound men in charge of it. The best of them, without doubt, was the last—Aimé Guérin.

We come to the Indians. In 1668 the Jesuits founded a settlement for their Iroquois converts, who were chiefly Oneidas and Mohawks, at Laprairie. In 1676 they were moved to their present lands at Caughnawaga, opposite Lachine. The St. Regis reserve, on the same side of the river, and south of Cornwall, was a colony from Caughnawaga, and was founded about 1755.

“The Iroquois of St. Regis and Caughnawaga,” says the *Handbook of the Indians of Canada*, Ottawa, 1913, “can hardly boast an Indian of pure blood.” In the words of Adam Shortt, writing after a trip on one of the Island rafts,

"They are called Indians, and doubtless there is a basal strain of Indian in them all; but it looks out upon the world in this generation through such a variety of European masks that the results are truly marvellous. Such a museum of facial expressions I have never seen. . . ." Shortt tried to make some sketches, but found the Indian a very wary model.

The "time books" and other sources, in the Island records, show that Indians from Caughnawaga had been working for the firm from the early 1840's. A letter from Calvin and Cook to François Landrigg, February, 1854, instructs him to help his fellow-foreman, Joseph Lalonde, in hiring fifty men at Caughnawaga, and in bringing them up to the Island by the middle of March—1854 was expected to be a busy year.¹³ Lalonde, the letter says, "is to buy a pair of horses to assist in getting up the men's baggage." Their baggage was light indeed, if the men were anything like their descendants of later years, yet the buying of horses recalls the winter travel of the time. The Grand Trunk Railway was not in operation until 1855.

Fifty years later the arrival of the Indian raftsmen, usually early in May, was still one of the marked events in the Island's calendar; it showed that another summer's work was beginning. The routine of bringing them up from Caughnawaga (substituting railway for road or steamer) was much as it had always been. Second-class tickets were bought in Kingston, through the Hanley agency of the Grand Trunk, and sent to the station-master at Lachine, who arranged for a special coach on a specified date.

Nominally the Indians were under the control of a senior man of their own number—one who had been coming to the Island for many years—but they were often badly

¹³See pp. 44-45.

out of hand at the end of the four hours' run up to Kingston. The harassed conductor and his trainmen were glad to be rid of them, for not a few would be fighting drunk, in spite of sumptuary laws and their own poverty. A bill from the railway company for damage to the Indians' coach—broken windows and uprooted seats—was a common sequel.

The Indians arrived penniless, and were met by a man from the Island whose duty it was to take them to a certain shop in Brock Street and see them supplied with the high leather boots they needed for their work. After that they had to be shepherded over to the Island—a job that demanded diplomacy and a sharp watch on their movements. On occasion, one or two of the Indians would escape, pawn their new boots and disappear, to be rounded up later, or perhaps not until the next day, after a message from the police.

The regular ferry-boat did not welcome the Indians as passengers; one of the firm's tug-boats brought them over to the Island. Some were quiet enough, others lurched about in constant danger of falling overboard. Once a huge fellow known as Charlie Canoe, who had travelled with an American circus as its "Strong Man," forced himself into the tug's wheelhouse. He was cheerfully drunk, and insisted upon helping to steer—he soon found that he could easily hold the wheel immovable against any strength the captain had. The tug's course became erratic, and, on arrival at the Island, Canoe's amiable "help" caused the little steamer to ram the wharf heavily—to "fetch up all standing" as sailors put it.

Once ashore, the Indians were issued blankets and settled themselves into their quarters in "the shanty" and "over the bake-house." After a meal of cold meat, potatoes, bread and tea, they turned in early and most of them were ready for work in the morning. The time-

keeper entered their names—not their real names, but those which they used for their summer work at the Island—Louis Deer, Jim Ice, James Beaver, Peter Sky, Angus Hemlock, Louis Oak, Tom Friday, Charley Doubleskin, Tom Mudturtle, and so on. One Indian habit in this matter of names is suggested by a letter from Calvin and Breck to Joe Daoust, a raft foreman, in the 1870's. The firm wanted to trace an Indian who owed a small sum at the Island store; he could not be found on Garden Island, nor was his time-book name among those who had gone with the raft, but "perhaps he may be with you under another name," the letter suggests.

Long ago the raftsmen were required to answer to their names at a daily roll-call. The time-keeper sat on a chair at the top of the office steps, which were built of great solid pieces of oak—waste from the shipyard. In rainy weather, or when it was very hot, he set his chair in the open doorway. As he called the names, the replies varied from a polite "Here, sir!" in English with a French accent, down to guttural monosyllables. One of the men, a French Canadian who lived on the Island, used to relieve his hatred of "Tony" (who had little French) by calling him "*Serpent à sonnette!*" by way of answering to his own name.

The Indians worked cheerfully enough, in all weathers, under the direction of the rafting foremen. A few veterans among them could be given some responsibility, but as a whole they were not to be depended upon. For instance; they would work just so long—no one could tell how long—and then leave, seemingly for no reason and certainly with no regard for the firm's need of their work. It was useless to try to persuade them to stay, even until the next raft would start, on which they could have free passage home. Aimé Guérin tried in vain, one day, to hold a lone quitter;

"Va tu voir ta blonde ce soir?" he shouted after him as he ran to catch the ferry-boat. Then, laughing, he muttered to himself, "maudits sauvages."

This inability to fit themselves fully into the work of the Island extended to the Indians' relations with the other employees and with the village people. They seemed to retain, in spite of mixed blood, much of the traditional aloofness of the Indian, and kept themselves to themselves. Occasionally they gave trouble, and the doctor had to be fetched to patch up the loser of an all-in fight, but these rows were always with one another. Among themselves they spoke their Iroquois dialect; all of them knew French well enough, and most had some English also. A few Indian words found their way into the Island's local vocabulary.

The raftsmen's wages were not high—there were no high wages for anyone in Canada until the twentieth century—but it must be remembered that they always had free lodging and food. Moreover the food supplied them by the Island firm was almost certainly a good deal better than they could provide for themselves and their families at home. Their monthly wages were \$9 in 1849, rising to \$15 in 1867 and to \$28 or \$30 in the 1880's. Wages did not go up much after this, but both the amount and the quality of the work done in exchange for them fell off sharply in the last years.

The foremen's wages, as a general rule, were from twice to three times those of the men under them.

7. STAVES

At the turn of the century, all the various activities of the Garden Island firm—lake freighting, rafting, wooden shipbuilding, river towing—were the lineal descendants of the same activities of fifty years earlier. The firm had

ceased making and selling timber, but others were still at it, and timber, from every aspect, was perfectly familiar.

Not so with oak staves. Stave-making, as a part of the firm's work, seems to have ceased before timber-making. There is almost no mention of staves, in the records, after the early 1880's. Up to that time, however, from as early as 1836, they are a constant subject, and something of the staves themselves, and of rafting them down the river to Quebec, can be traced.

Though there were other sizes, for example the heavy "pipe stave," the two which were common in the Quebec export trade were the "standard" and the "West India." "The standard stave," Calvin and Breck wrote to an inquirer, "is $5\frac{1}{2}'$ long, 5" broad, $1\frac{1}{2}"$ thick, and is sold by the mille, viz. 1,200 pieces. They are gotten out [that is, made in the bush] singly, to measure, viz. $5\frac{1}{2}'$ by 5", $4\frac{1}{2}'$ by $4\frac{1}{2}"$, $3\frac{1}{2}'$ by 4", $2\frac{1}{2}'$ by 5", all from 1" to 3" thick . . . the staves are split . . . red oak is not used." Ordinary West India staves were $3\frac{1}{2}'$ long by 4" broad and $\frac{3}{4}"$ thick, large West Indias were $3\frac{1}{2}'$ by 4" by $1\frac{1}{4}"$ thick—that is, the third size named in the letter would be an ordinary West India stave.

A Quebec letter says that in the bush the blocks of white oak were cut 6" thick, to make four staves each $1\frac{1}{4}"$, the "large West India" thickness—that is, an extra inch was allowed in case the 6" blocks did not split "fair." For the timber-maker, staves seem to have been a by-product, made from blocks split off the great tree-trunks as they were squared down into timber, also from tops and branches. But staves were also in many cases a separate article of commerce.

The first staves, like the first oak timber, came to Garden Island from the nearby country. "Our Waterloo business"¹⁴ included stave-buying; Calvin and Cook also

¹⁴See p. 40.

had an agent who bought staves for them at Clark's Mills, Camden (on the Napanee River, fifteen miles north-west of Kingston). A letter of 1855 speaks of "a cargo of our Napanee staves." When the timber came from farther west, great quantities of staves accompanied it; the records of the 1850's and 1860's show that the cargoes of the little schooners very often consisted of both timber and staves.

It is difficult to be sure how staves were handled upon arrival at the Island, but almost certainly they were too small to be discharged loose into the water, like timber. They are spoken of as shipped from this or that pier, and "off Cameron's wharf," which must mean that they had been discharged on to these places. Staves were sometimes shipped by barge from the Island to Quebec, where there were charges for "landing and piling." There are also records of staves being sent down loaded on top of drams of timber, a letter of 1879 speaks of "12,318 pieces West Indias on Dram 74."

The great bulk of the staves for Quebec, however, went down in stave-cribs; the first raft of 1862, for instance, consisted of fourteen drams of timber and thirty-three cribs of staves. A stave-crib was not at all the same as the cribs which made up the framework of the timber-drams. One of the components of a stave-crib was the "grubb" or "stave grubb"—the name occurs constantly (with "floats" and "traverses") in the records, but what they were is now unknown. A stave-crib was about 20 feet square, the bottom of it, and its sides, must have been "close" enough to hold the small staves safely. About 6,000 standard staves, or about 23,000 West Indias, laid on edge, went into each crib—a ratio which bears out the Island rule that four West Indies equalled one standard stave—it is right within ten per cent.

It seems fair to assume that the bottom and sides of the

stave-crib were built of wattling, which could be easily woven from small-sized withes. The cribs were "bound off" before they could run the rapids; this probably means two things, first that the open top of the crib had to be closed in some way, and second that six or eight stave-cribs were joined solidly together and ran the rapids thus, steered by oars like the timber-drams.

Staves were subject to the same hazards as timber, on their trip down the river, but the records contain very little about losses of them. This may be only because staves were not very valuable; 1,200 West Indias, in 1863, were worth no more than two or three average pieces of oak timber—"short delivery" of a few hundred staves was not very serious, financially.

The rate of freight on staves, by raft from Garden Island to Quebec, in the 1860's and 1870's, was \$26 per mille for standards and \$9 for West Indias. These rates are not in the four-to-one size ratio between the two kinds of staves, which no doubt means that the smaller West Indias cost more to handle.

From Quebec, all the staves went to Britain, where the cooperage trade made the "West Indias" into barrels which were sent to the "sugar islands" to be filled with rum or molasses.

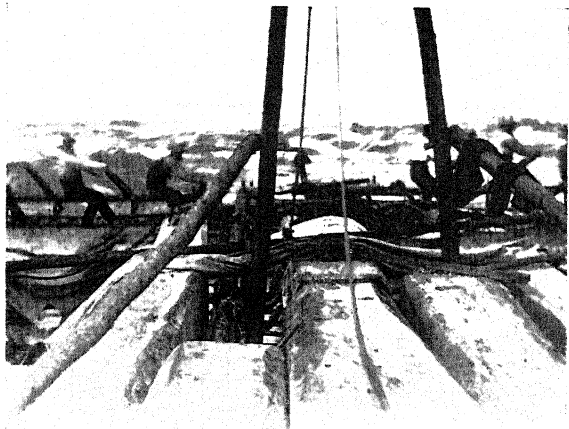
8. MASTS

Pine masts, in the records of the Island firm, fill a less important place in relation to pine timber than do oak staves in relation to oak timber. It does not appear that masts were sought after, like timber, which was the firm's stock-in-trade. On the other hand, they are mentioned again and again; it would seem that they were bought and sold as opportunity offered, rather than as a regular part of the business.

In 1846 William Price of Quebec was given an allowance by Dunn, Calvin and Company, on a purchase of first-class masts, because of their "not being Government lengths."

"We have about 200 to 250 masts at Long Point on Lake Erie," Calvin, Cook and Company wrote to the Hon. Malcolm Cameron, President of the Board of Works, July 1st, 1848, and they are so large that we cannot ship them [that is, by schooner] and to raft them as the Board of Works has restricted would subject us to large expense and great delay in re-rafting them." They ask "that your Honorable Board will allow us to pass, as before, with cribs . . . 24' by 100' . . . through the Welland Canal." What the Board's restrictions were, and whether the Island firm's request was granted, have not been traced. The masts did get through, somehow, for the Quebec books of 1848 show that the firm had many for sale—one lot ran to 186 pieces. John Hall bought 81 pieces, in that season. At this time, and for many years afterwards, masts were in constant demand by Quebec shipbuilders for their new ships and for repairs to incoming ships, as well as for export to Britain, where the Admiralty and merchant shipyards were the buyers.

"Mast Account" in the Quebec office books of 1850 is charged with costs of some £3,000. In 1852, Calvin and Cook wrote to an inquirer, telling him that they thought 1853 would see a good market for masts at Quebec. They suggest that masts 69' long should be 20" in diameter at 23' from the butt—for each further 3' of length add one inch to diameter. They advise that he leave his masts undressed, the dressing should be done at Quebec. On October 15th, 1853, Calvin and Cook offered to H. R. A. Boys prices ranging from £30 for masts 99' long by 30" diameter and £27 for 90' long by 27", down to £10 for 81' by 24" and £6.5.0 for 75' by 22". These prices, says the



PINE DAM IN CASCADES RAPIDS



RAFT PASSING THROUGH MONTREAL HARBOUR

letter, "are as much as we could afford to give at Toronto." In 1857, the firm had a few masts wintering at Indian Cove, below Levis.

In the Island firm's most active years as timber-makers and exporters, there were fewer dealings in masts than there had been up to the early 1860's. In the 1880's, and later, the firm occasionally bought masts in Quebec for its lake vessels, and brought them up by barge to Garden Island—a reversal of the earlier movement. But these were isolated cases; the firm could buy masts from lots passing through its hands as forwarder—Flatt and Bradley, of Hamilton, for example, sent masts to Quebec in 1886. In general, however, the trade in pine masts disappeared with the coming of steel ships.

Yet in 1894 a lumber firm in Tonawanda, N.Y., wrote to The Calvin Company, who had approached them about forwarding their waney pine to Quebec, that they were not making Board Pine; instead, they had sold some 50,000 cubic feet for spars "at a much better figure than the Board timber would bring." These spars may have gone to the Massachusetts coast to be stepped in fishing schooners.

The work of making a great 90' pine mast ready for stepping was one of the most interesting of the many skilled jobs that went with wooden shipbuilding. Axe, draw-knife, plane, callipers and finally sandpaper, gradually brought the body of the heavy mast to its true round and taper—with an ever-thickening path of chips and shavings underfoot, along its length. And the carpenter's methods were probably not greatly different from those used in the Admiralty dockyards in Pepys' day, in preparing "masts of New England" for use in the King's ships.

CHAPTER IV

QUEBEC

1. THE TIMBER COVES

THE QUEBEC timber coves were the goal of all the timber which came down the Great Lakes and the St. Lawrence, and they were the starting point for the export of that timber to Britain.

Although they varied in size and shape, the coves were in the main very much alike. The essentials of a good timber cove were safety in bad weather during the shipping season, safety for stored timber during the winter, and plenty of working space. Each cove was a great rectangular subdivision of the beach and water-lots, contained by two long piers jutting out at right angles from the general shore line, usually as far as low water mark, and about 1,200 to 1,800 feet apart. Beyond the outer ends of these long piers, far enough to give about thirty feet depth at low water, there were square piers called "blocks," at which the sailing-ships, and later the steamers, lay to load timber. Within the cove area there were sometimes smaller square piers. The outer front line of the cove was closed by strings of booms, and booms could be run between the other piers, in both directions, within the cove itself,

dividing it as might be required by the work in hand. The booms (as at Garden Island) were made of rough square pine timber bolted together, two or three sticks wide—wide enough to walk upon except in very bad weather. Each unit of the booms was from twenty to thirty feet long.

The best coves were those which needed long containing piers; that is, they were situated at places where the river bottom sloped out gradually, leaving a wide space of tidal flats between high and low water. Coves were not established where the water deepened suddenly, for this would have given little or no area for working or for storage.

The work at the cove was to receive the timber, sort and grade it, and ship it out again. The outer boom was opened to receive the drams; before they were broken up, each piece of timber was measured by a government culler, whose measurement was final as between seller and buyer, as well as for the collection of freight charges. Usually the culler's figures varied little from the "bush" measurement, or from that made at Garden Island. The loose timber, after the drams had been broken up, became the stock from which to fill the orders secured by the Quebec merchants on their annual visits to Britain, or to make up consignments to be sold in England or Scotland on commission.

Traditional British conservatism is well illustrated by the fact that buyers would not deal in dollars per thousand cubic feet, but only in sterling rates for their own unit, the "load" of fifty cubic feet. Pepys, October 18th, 1664, says that "we made a very great contract . . . for 3,000 loades of timber." The load of fifty cubic feet is thought to be derived from the amount of oak which a team of horses could haul out of the English woodlands and along the roads of long ago—the weight would be somewhat under a ton and a half.

The superintendent of the cove, who was always a competent judge of timber, would pick out the pieces to make up a certain order—400 loads of first-class oak, 500 loads of second-class waney pine, 300 loads of first-class rock elm, always averaged to a specified size. Many pieces, because of the several handlings they had been through, would be spread out on the beach, at low water, to be worked over and made ready for the keen eye of the British buyer in Liverpool, Belfast, Glasgow or London. This piece would have a bruised or split end cut off—"butted," as the phrase was; another would have one or more faces re-dressed with the broad-axe—and so on. Quantities of excellent firewood for the cove-men resulted from this work.

In the great days of the export trade, timber coves occupied every suitable part of the shore line from the foot of Cape Diamond, under the citadel, up the river to Sillery and Bridgewater Coves. There were coves again at Cap Rouge, three miles above the great bridge, then undreamed of. There may have been perhaps twenty-five active coves in the 1860's and 1870's, certainly the names of more than twenty occur in the records of the Island firm's Quebec office. The whole length of "the lower road," following the beach from Quebec to Sillery, was filled with the shore activities of the timber trade and its ships. It was not easy to believe, in the early 1900's, that these things could have been true only thirty years before. It was a slow, depressing drive, in a one-horse cab or a *calèche*, from "lower town" out to Sillery—the coves were derelict, time and the grinding ice-floes had carried away most of the piers, Jackson's Hotel at Wolfe's Cove was a shell. (Today, of course, there is the activity of the great steamship quay at this part of the road.) More pleasant routes to Sillery, forty years ago, were by the "upper" (St. Louis) road or by water in the little steamer *Frontenac*.

Whether you arrived by road or by water, you saw, above Sillery Point (Pointe au Pizeau) the last busy survivors of the timber coves stretching up the river shore for a mile and a half. From the top of Sillery Hill the timber, at high water, was like a great irregular floating carpet of wood, two or three hundred acres in extent, in Bowen's Cove (Dobell), Sillery (Sharples), Upper Sillery (Dobell), and Union Cove—this last was where the rafts from Garden Island were swung in as they arrived, usually just at low water. Across and up the river could be seen, not very distinctly, New Liverpool Cove; Bridgewater Cove was out of sight behind the next point, on the Quebec side; Hadlow Cove was a mile or two above Levis. These were all that remained from the great days.

The coves were often, but not always, neatly fenced along their landward side, next to the road. Each had its office, which in some cases was the cove owner's headquarters, more often it was a branch office of a Quebec timber house. The cove-office work, apart from the daily routine of time-keeping, and weekly pay-rolls, was to check over the specifications of incoming timber and to make up those of outgoing shipments.

The employees of the coves above Pointe au Pizeau lived nearby, in Sillery village; they were of Irish and French descent—many united the two strains, for they were all Roman Catholics and all were bilingual. Many of them went to the Ohio woods to make oak, or to Michigan to make pine, in the autumn and winter. A very decent lot of men they were, though some of the Irish among them had all their race's love of fighting. "Ye've no French where you come from—how d'yez get up a fight?" I was once asked by a cove boy of fourteen summers.

There was an odd, old-world paternalistic (not at all democratic) relationship between the cove men and their

employers. Father and son worked for the same merchant, the merchant and his son looked after their men, down the years. To the very end of the activity of the coves, one or two of the merchants still lived on "the upper road," their houses hidden among the trees. In the busy summer months the merchant would be up and about as early as his men—soon after daylight if it coincided with high water and there was some special movement of timber to be made. One of them made his morning rounds on horseback, often talking to his foremen without dismounting, but looking keenly over the work in hand—then off up the hill to breakfast, with office hours in Quebec to follow. And they were very long hours, on "English mail days." Early to bed was the rule, at the end of the busy timber merchant's long day.

2. PETER STREET

In his *Reminiscences of a visit to Quebec, July, 1839*, William Kirby speaks of ". . . the miles of shipping that lined the foreshore . . . the great rafts floating down the stream . . . treasures of pine and oak. . . ." It is a curious fact that such a reference to the export timber trade is very rarely found in books about Quebec, which deal with French and English governors, with Church and State, war and peace. Writers take us through the ancient streets—Sault au Matelot, Sous-le-Fort, Buade, du Parloir—and point out the buildings which survive from the *Ancien Régime*; they tell of the city walls and their gates, of the citadel, of the monuments to Frontenac, to Wolfe and Montcalm. But of *la rue St. Pierre*—Peter Street, in the Lower Town—there is little or nothing, though there stands in it to this day at least one French merchant's house of the eighteenth century, whose garden and "offices" once extended down to the owner's wharf

on the river. Nor is it recorded that the short, narrow street was the headquarters of the trade in what was for many many years Canada's chief export—square timber. For as the timber itself came to the coves, so all the timbermen's trails led to Peter Street, where were sold the oak, pine, elm, walnut which came down the St. Lawrence year after year, from ever-greater distances.

Forty years ago, Peter Street still retained an old-world air. Its worn flagstone sidewalks, barely wide enough to walk two abreast, were filled with puddles by the least rain. Its pavement allowed horse-drawn vehicles to pass the one-way street cars, but with little to spare. The Island firm's office, at No. 113, was in an ancient building (long since demolished) that had once been a dwelling. Its high basement and the next two storeys were used for offices, above them was an attic which housed the janitor—and one piece of primitive plumbing.

Up the deeply worn stair, a turn of a ponderous lock, and you were in the office—two little rooms that looked across Peter Street through three casement windows. Its stove and wood-box, its oil lamps (the earlier brass candlesticks and snuffers were still there, too), the tiny brick vault, the desks—all took one back to earlier times. Bob Cratchit might have sat on one of the high stools to work at the heavy ledgers. In a cabinet in the inner office were other reminders of a past day—quill pens, wafers, there was even a sand-shaker for anyone who disliked this new-fangled blotting paper. The huge wall-type telephone seemed a very modern intruder; the typewriter never gained entrance.

Few of the timber exporters had clung so closely to the old ways. Sharples was in the six-storey Union Bank building; Dobell, Beckett were upstairs over the Bank of Montreal (not the present building) in what may once have

been the manager's quarters; the McArthur Export Company (E. H. Wade) was in the Quebec Bank building; Burstall was a deserter, he had moved into Dalhousie Street, as had Dunn and Company. In all these offices there could be seen some beginnings of modern "system," but the single telephone was still in a cabinet (supposed to be sound-proof) and the letters, though typewritten, were still copied in a press on to the dampened tissue pages of "the letter book."

All who knew Peter Street knew "Donnelly's." Its only sign was the almost illegible name of the publican on the screen of the bar window. It served; for "Donnelly's" was really a luncheon-club for Peter Street, it had few casual patrons. The short bar was on your right as you entered, at the back of the room were a few tables and chairs. At the left a steep stair led up to a small room which was divided into spaces for four to sit down at a little table. Privacy, however, was not very complete. The kitchen and pantry were upstairs again; the two white-aproned Irish waiters shouted their orders and queries up the shaft of the dumbwaiter: "Two beef and greens," "Mr. Burstall wants some strah'bries," "Steak and kidney pie, three," or "What about that puddin' for Mr. Power?" Everyone knew what everyone else was eating. Donnelly's was famous for its beef sandwiches, and in their seasons for salmon, and for the Malpecque oysters which you ate as they were opened for you at the bar, or they would be brought to your table on a black-japanned tray—good food, and no nonsense about "service," was the rule.

One at least of the timber merchants was seldom seen at Donnelly's. In a corner of his private office stood a cellaret and on it a huge cut-glass bowl full of broken ice and bottles of soda, White Rock, Apollinaris. Young fellows were never offered drinks, but unkind things were

sometimes said of the bargains made in that office, even when sandwiches went with the whisky. The host had a very hard head.

Peter Street's annual cycle began in the autumn. As the seasonal export rush came to its end, the merchants were already in touch with the timber-makers, and with the Island firm for freighting, looking towards the next season's supply of timber. Late autumn and early winter found the export merchants busy making up their price-books which they would carry with them to Britain. These all-important little pocketbooks contained complete figures for each kind and quality of timber—the cost price per cubic foot, the various charges which would be added before it was ready for export, the estimated ocean freight and landing charges in Britain. These figures were then converted from dollars into sterling, and from cubic feet into "loads," and profit at two or three different rates added. The finished price-books, which were written by hand, were marvels of condensed private information, and were jealously guarded.

The merchants' habit was to leave for Britain soon after the New Year; usually they all went in the same ship, and usually, also, from New York by Cunard or White Star. They returned at varying times, some before the Quebec winter was over, but more often by the first steamers into the St. Lawrence, in time for the opening up of the timber coves after the long winter, and for the beginning of the season's timber shipment.

This routine was not, of course, so rigid as it may seem. Not all the exporters' buying was done in Peter Street, nor in the autumn, nor was all their selling done during their time in Britain. Sometimes the merchants went out west

to meet the timber-men, perhaps as far as Ohio; and sales went on, by cable, all summer long, in good years. The different offices had private codes which they used in cabling their British agents.

All of this annual routine applied also to the export of sawn lumber—particularly 3" pine deals—which most of the Peter Street merchants had added to their timber export, from the time when sawmills began to operate on a large scale, chiefly in the Ottawa valley.

The life of the Peter Street merchants was deeply coloured by their close business connections with "the other side." They thought of themselves as English. Even though some of them were of the second or third generation born in Canada, they, too, often spoke of their annual trip to Britain as "going home." They all wore London-made clothes. It follows, unfortunately—the divisions of the English-speaking peoples being what they are—that the Ontario timber-man, and still more the American, was not quickly at ease with them, nor they with him.

Indeed a few of them had a perfectly comic idea of their own superiority over their fellow-Canadians from Ontario, and over Americans. They did not recognize, in the streets of the Upper Town or on Dufferin Terrace, the same man with whom they had been for years on familiar terms in Peter Street and in "Donnelly's"—not until he was vouched for "socially." One timber-man was so incensed by this treatment that he stopped selling his oak in Peter Street and shipped it to Britain himself. He was a member of Parliament (later a Senator), grandson of a leading U. E. Loyalist pioneer on the Lake Erie shore, and a thorough-going Ontario democrat—he would not put up with such airs.

One of these superior fellows asked me to call at his office, where the day's work constantly took me. He did not invite me to sit down, but greeted me with hot words about some trifling difficulty with delivery of timber at his firm's cove that morning. When it was pointed out that the Island firm had been able to do business amicably in Peter Street for thirty years before his firm was heard of, that there were usually two sides to a question, and that I would listen if he used a different tone, he calmed down and all was well.

Such an incident was a rare exception to the rule. In general, Peter Street was a very pleasant place in which to do business. There is much to be said for its blend of traditional English ways with those of this continent. And the Westerner very quickly found out that "trading" was quite as keen in Peter Street as it was in his own country.

There was among the timber-merchants of Peter Street, in the 1860's and 1870's, one true "world trader"—James Ross ("old Jimmy Ross"). He was a financial man, advancing money to timber-makers, timber-buyers, ship-builders and many others. He was himself a timber-buyer and exporter, on no mean scale. In one way or another he had a hand in almost all the dealings of Peter Street—his doings and his opinions constantly come into the letters of the Quebec office to Garden Island. James Ross owned outright, or had a controlling share in, a whole fleet of sailing-ships. He sent them over all the seven seas, timber from Quebec was but one part of their carrying. When at some far port no cargo was offered, he would buy a cargo for his ship and send her to a place where it could be sold. And so on—this interesting type of business-man can no longer be met with in these days of specialists.

3. THE DAILY ROUND

Through its Quebec office, the Garden Island firm long held a unique place in the little world of Peter Street and the timber coves. In 1865, before a Select Committee of the Assembly of the Province of Canada, appointed to inquire into the methods of measuring timber at Quebec, John Storey of D. D. Calvin and Company took oath that that firm had "larger business transactions with the Supervisor's [of Cullers] office than has any other House bringing timber to this market." These transactions, of course, included those relating both to its own timber and to the timber of which the firm was the forwarder only, not the owner. Nevertheless 1865 was not the only year in which the Island firm was the leader in bulk of timber put through the Supervisor's hands.

More interesting than mere bulk of timber handled, however, is the diversity of the firm's relations with the Quebec exporters and with the Quebec timber trade in all its various activities. As the leader in rafting, the firm acted as "common carrier" for producers and exporters. As timber-maker, it competed in the Quebec area in recruiting men to work in the western woods. As timber-seller, the firm competed in the Quebec market with other western makers—whose timber it would hope to raft down the river for them, whether sold or not. The Island firm was also an exporter; following the Quebec custom it had an agent in Britain (Edmiston and Mitchells, of Glasgow) to whom timber was consigned for sale on commission. This led in turn to competition with the firm's own Peter Street customers in chartering ships and shipping space. The records of the Quebec office abound in reports, to Head Office at Garden Island, of keen selling rivalry against the very firms for whom the Island was working as

forwarder. It is astonishing that all these activities seem, usually, to have been carried on without friction.

Not always—that would have been impossible. One of the Peter Street exporters once carried on a feud with the Island firm for nearly seven years. Calvin and Breck had been selling their oak to this man almost exclusively; John Storey used to speak plainly, in letters to Head Office, of his “monopoly.” The fact was that the timber was being sold too cheaply—H. A. Calvin made an end of it in 1878, when business was improving after “’73,” by selling to other Peter Street houses. All that followed from this break is easily traceable to the natural annoyance of the favoured exporter at the loss of his “monopoly.” It is not a very pleasant tale. The firm’s Quebec office, at one point, had to enlist the help of five or six of its Peter Street friends in order to enforce “the custom of the Port of Quebec” upon this man, and so to curb his high-handed action over certain timber deliveries.

In its dealings with all these things, usual or unusual, Quebec office was answerable to Head Office, yet the agent was allowed a generous measure of freedom. Often he was given *carte blanche* in making an agreement or a sale, but major decisions and sales were necessarily made at Head Office or by a member of the firm who came to Quebec for that purpose. Broad and long, throughout the life of the Island business, the chief cares of the Quebec office were two. One, obviously, was the collection of money from timber sales and for freight. The other was responsibility for the rafts after they had passed Montreal (that is, tug captain and raft foreman would then appeal to Quebec office, in any difficulty) and for the timber in them after it had reached Quebec. This was no light duty in the busy years; writing to the Island in 1873, John Storey wished wearily that there might be “a little longer interval between the rafts.”

As soon as possible after a raft had left Garden Island, specifications of every stick of timber contained in its various drams were sent by mail to Quebec office. These were handed to the different consignees in Peter Street, so that each would be able to relate the timber in his drams to his British orders and to the shipping space which he had chartered. When he knew that the raft had passed Montreal the Quebec agent followed its progress, often by asking news of it from the pilot of the overnight passenger steamer from Montreal. Then, when it was reported to be well below Three Rivers, experience and the tide-tables would tell him when—barring accident—it might be expected to reach the timber coves above Sillery.

The towing steamer could not pull a raft downstream against the flood tide, which often carried both steamer and raft upstream with it, for a few miles. The usual arrival of a raft was “on the tail of the ebb.” A mile or so above Union Cove the steamer turned in towards the Quebec shore, letting the raft swing downstream, and then edged in to the cove-piers “in the eddy”—that is, where the flood tide was already rising quietly along the shore, though “out in the stream” it was still on the ebb. In bad weather, or if the raft was a very heavy one, a tug was often sent up from Quebec to help the Island steamer to “land her raft.” Nice judgment, born of long experience, was needed to swing and land a raft—an unwieldy floating island, 120 feet wide by 1,200 to 1,500 feet long, and weighing some thousands of tons. The most expert captain in the Island firm’s service, at this special job, was a French Canadian named Alexandre Gignac, in the Island-built side-wheeler, *John A. Macdonald*. Gignac in “the old *John A.*,” and in earlier steamers, towed the Island rafts, below Montreal, for over forty years.

Next came the “distribution” of the raft. The Island

firm's timber, if unsold, would remain in Union Cove, but there might be two drams for Sharples, two for Dobell, four for Ross, and so on. It often took two days or more to put all the drams of one of the great rafts of the 1870's into the coves of the various consignees. These moves, like landing the raft as a whole, demanded good judgment from the steamer captain, for they could be made only at (or near) high or low water, when the current was slack.

And there were the hazards of the crowded river—even Gignac got into difficulty at times. In the summer of 1874, for example, a dram of oak, one of seven in tow of the *John A.*, fouled the anchor-chain of a ship lying in the stream, and broke away. The steamer delivered the other six drams, and returned to find alleged "salvors," thirteen of them, on the dram caught in the chain. After some rough talk from both sides, the *John A.* took charge of the dram and delivered it to its consignees. Later, before the Trinity Board at Quebec, D. D. Calvin and Company were ordered to pay \$30 to these "river sharks," as John Storey called them.

One of the points of delivery of oak timber, which occurs fairly frequently in the Quebec office records of the 1860's and 1870's, was not a cove, but "St. Roch." This is a link between the Quebec timber trade and Quebec's ship-building. St. Roch is one of the Quebec parishes on the St. Charles River—timber taken there would not be for export, but for the shipyards which once flourished along "the little river."

After deliveries had been made, the raftsmen (except foremen and cooks, who went back for another raft) were paid off. If they then got drunk, it was their own affair, but sometimes they got into trouble before they were thus freed. Storey, August 30th, 1865, wrote to Calvin and Breck that "Four men . . . who went to St. Roch with a

move, lost their canoe, put up at a tavern, and left a rope in pledge for their bill of 7/-." He went on to say that the foreman also was drunk and had missed neither men nor canoe nor rope. Such lapses, fortunately, were rare, and Storey's distress shows his jealousy for his firm's good name in Peter Street and the timber coves.

The really serious difficulties and losses, during the progress of the rafts below Montreal, were nearly all due to bad weather. Indeed the weather was a constant pre-occupation; naturally so, since the timber business was carried on out-of-doors—in the woods, on the Lakes, at Garden Island or on the river. Letters to the firm from their various agents, captains, and timber-makers, as well as the firm's own letters, are full of notes of the weather—the thaws which stopped hauling in the woods, and the gales which hindered the rafting. Correspondence between the Island and Quebec was no exception; the weather found its way into almost every letter—even to Breck's complaint to George van Camp, in July, 1854, that "the nights are too hot for two in a bed."

But of Quebec weather: on May 8th, 1874, the river was still ice-bound, with the first raft well on its way—would the ice be gone before it arrived? In November, 1873, two drams of timber (not from a Garden Island raft) were carried down past Quebec by the ice; one was stopped at Indian Cove, a little beyond Levis, the other only at Trois Pistoles, one hundred and fifty miles below Quebec. Conditions were bad that autumn; a letter from John Storey to the Island says that one dram, though afloat, looked "somewhat like a wharf," so high had it been lifted by the ice as it thickened around and under the timber. The timber ships also suffered. In 1875 nine of them were in trouble in a gale of wind, while loading at the coves.

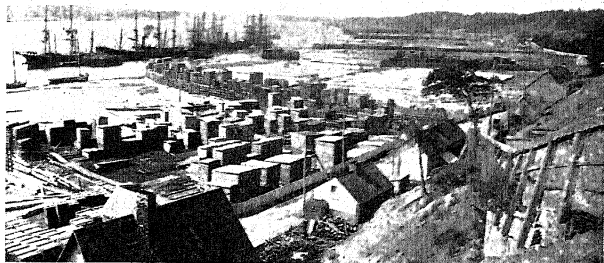


Photo Livernois, Quebec

TIMBER COVES, SILLERY (1876): SHIPS LOADING FOR BRITAIN

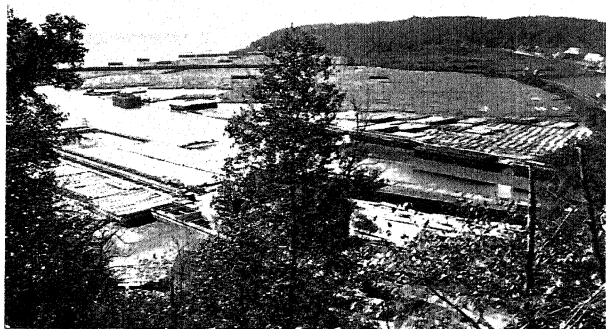


Photo Livernois, Quebec

NEARER VIEW OF COVES SEEN IN DISTANCE, ABOVE

The *Agamemnon* "carried away her mooring posts" and went adrift, says a letter from Quebec to Head Office, but she was able to let go her anchors in the stream. Some of the Island firm's timber, which had been alongside this ship for loading, was lost.

The danger of having timber caught in the ice disappeared with the decline of the trade; for, from about 1885 the rafting season finished earlier than in former years. And soon afterwards there ceased to be sailing-ships to break loose and cause damage. But the weather remained what it had always been, and still is.

In the late afternoon of June 16th, 1905, a Garden Island raft of six heavy drams of waney pine had nearly reached the safety of the timber coves. Ten or fifteen miles above Sillery it was caught by a sudden gale of north-east wind, at the new-moon spring tide; only those who know the river above Quebec can realize the foul weather which results from their coincidence.

The tides—about seven hours' ebb (with the current) and five hours' flood—vie with each other in adding to the tumult. The ebb, pushing down against the up-stream wave-motion, brings a high confused sea; the flood, driven by the gale, rises four or five feet higher than the normal eighteen feet. Its long heavy seas, running before both wind and tide, were a great menace to the rafts. Sometimes, of course, there was some warning of bad weather, and the raft would be held in shelter, up river, until the gale had blown itself out.

This raft of June, 1905, then, was carried back up-stream on the stormy flood tide to within three or four miles of Platon, where, in spite of the best efforts of the towing steamer, it was steadily setting towards the shore. The tug captain decided to allow the raft to drift on to the

beach, rather than have it break up in the open river. He took his steamer to Platon wharf and telegraphed his bad news to the firm at Quebec.

It was a serious affair. Four of the six drams remained intact, though damaged, and were taken to safety behind Platon Point as soon as the weather would permit. But nearly all the eleven hundred pieces in the other two drams were strewn loose along ten miles or more of beach. Extra raftsmen and a second steamer were sent to the scene and the work of salvage organized. After some ten long days (of non-union hours) the timber was nearly all recovered—some of it, with no little difficulty, from would-be thieves—and delivered to the consignees at Quebec. Only about a dozen pieces were lost. The salvage cost was high, about twice as much as the freight earned on the whole of the timber.

The sales made by the Garden Island firm in Quebec probably show very accurately—except in the years of the “monopoly” which has been mentioned—the fair market prices of timber over a period of forty-five years. As already said, the firm sold very little timber after about 1885.

It has been impossible, from the records, to determine for every sale the average size of the timber sold. It may be safely assumed that this does not greatly affect the variations of price—“supply and demand,” not the average size of the timber offered for sale, was the governing factor.

Oak first, then: prices in 1841 ranged from $1/1\frac{1}{2}$ to $1/4$ Cy. per cubic foot, and so remained until 1853, except for a slight fall in 1846. In 1854 there was a rise¹, $1/6$ was paid for timber averaging 75 cubic feet, other sales ran as high as $1/11$. Prices fell in 1855² to $1/3$ and $1/4$. In 1857 we find $1/7$, in 1863 $1/8$, $1/9$ and $37\frac{1}{2}$ cents; in 1864 only

¹See pp. 44-45.

²See p. 45.

32 to 34 cents, and in 1869 31 to 33 cents. Then came a sharp rise—37 cents for 70 cubic feet average in 1870, 50 cents in 1872, 51 cents in 1873, the year of the “break.” In 1874 we find 44 cents, in 1875 37 cents. The lowest prices were in 1879, 31 and 32 cents; in 1883, after ten years, we again find 50 cents, and for one lot 52 cents. A sale was made at 46 cents in 1887.

Square pine: the firm’s sales of this timber were small, but the records show 5d. Cy. per cubic foot in 1845, 3½d. in 1848, 4d. in 1859, 10 to 12 cents in 1869, 17 cents in 1875, 20 to 26 cents in 1885.

Waney pine: large quantities were sold by the firm in the fifteen years 1871-1885, and pine prices in Quebec fluctuated much less than did the price of oak in those years. The price of waney was 33 cents per cubic foot in 1871 and 1872; 31 cents in 1875; 33 cents in 1876. It fell to 27½ cents in 1877, rose to 29 cents in 1878 and 32 to 35 cents in 1880. In 1885 there were sales at 39 cents.

Sales and collections, the rafts and the Island towing-steamers, ships and consignments to Britain, accidents, relations with the Peter Street merchants—the Quebec agent was a very busy man in the summers of the great years of the timber business. Most of the work, as with any other business, was routine—even to its difficulties. Certain of them occur year after year in the correspondence. For instance, the Peter Street men never seemed to understand that dates for delivery of timber in Quebec were impossible to predict definitely, because of the chances of unforeseen delays between the woods in Canada West, Ohio or Michigan and the coves at Sillery.

Shortage³ was a chronic difficulty. John Storey wrote to Head Office, at the end of the rafting season of 1865, that he was “fairly into the most unpleasant . . . duty

³See p. 76.

at Quebec—settling for short deliveries.” The firm always felt, down to its last years, that the forwarder was not too generously treated, in this matter. To take a simple case, suppose that the firm’s lake captains signed Bills of Lading, at a Lake Superior port, for 1,000 pieces of waney pine. Suppose also that when the timber was unloaded at Garden Island it tallied out correctly, and that when rafted and measured the count was again found correct. Now: if it was found by the Supervisor of Cullers, upon measuring in the cove, that there were only 998 pieces, then it was obvious that two pieces had been lost, and it was reasonable that the forwarder should pay for them. But, if the Supervisor—whose count and measurement were final and binding—found 1,002 pieces, had not the forwarder delivered two pieces more than he was called upon to deliver? Ought he not to be paid for them? “No,” was the collective answer of the Quebec consignees, “it is heads we win and tails you lose.”

After New Year the Quebec agent brought the books of the Quebec office up to the Island to be looked over (there was no formal audit) and to have their balances incorporated into the general books of the firm. A cold drive across the ice of Kingston harbour to the Island, a day or two of checking—through the short daylight and on into the evening under the oil lamps over the desks of the little Island office, warmed by the hardwood fire in the box-stove—and “settling up with Quebec” was finished for another year.

4. THE SHIPS

The written word about Quebec, from the Jesuit *Relations* to the modern “period novel,” insists upon the utter isolation of the place, long ago, from November until May. Even today, when looking north-east from the

Dufferin Terrace in a wild, winter storm of snow and icy wind, it needs little imagination to forget road and railway, telegraph and telephone, and to think of a time when the dark, ice-filled river—useless until spring—was the only link with the outside world.

Something of an earlier joy in the arrival of the first ships lingered on into the great days of the timber trade. For in the 1860's Quebec was still much cut off in winter; true, there was one train a day on the Grand Trunk from Levis to Montreal, but there was no railway to the Maritimes, nor any on the Quebec side of the river.

Forty years ago one used to be told tales of waiting for "the spring fleet," which meant, seventy or eighty years ago, the timber-ships. Watchers could see none from the Terrace, perhaps; though the river had been clear of ice for many days, the weather had been "westerly," holding the ships wind-bound "below the Traverse." Then, within a few hours after a change to easterly winds, the sails would begin to show themselves down-river. Before the first ship had reached Quebec there would be a score in view, with many more to follow. It must have been a splendid sight, for under full sail the square-rigged ship—even the "timber-drogher"—was one of the most beautiful things ever created by man.

The usual season's work of the timber-ships, between Quebec and British ports, was two voyages. The first arrivals were in late April or early May; the latest sailings for Glasgow, Liverpool, London or Belfast, after a second westward trip, were in November. Many of the ships, as we have seen, were built and owned in Quebec; their comings and goings on their lawful occasions were doubly a part of the city's commerce—as ships, and as tonnage for the export of timber.

All the trades that served the sailing-ship flourished

as a matter of course. The records of the Quebec office include many long bills of goods sold by ship-chandler and purveyor to the firm for the barque *Garden Island*—the variety of stores needed for an ocean voyage, by even a small vessel, is almost incredible.

The sailor ashore was not forgotten: there was no lack of taverns and boarding-houses, and the crimp was not unknown; there were river-side streets which had an evil reputation.

It is indeed strange that the timber trade, the timber-ships, and all the varied work related to them are so little remembered by historians of Quebec and the St. Lawrence.

One proof of the vast number of ships that had anchored in the stream opposite Quebec, from the days of French Canada onwards, was the presence on the bottom of the river of a "nest" of lost anchors—a famous hazard in its time. In spite of buoys and warnings it was constantly added to. When a ship's anchor fouled this mass, it could not be freed from it; the chain had to be hove as short as possible, at low water, and broken off—and then the "nest" included one more anchor and many more fathoms of heavy chain.

At last the Harbour Commissioners, some sixty or seventy years ago, had a special barge built—with an open "well" through her hull—to deal with this obstruction, using the rising tide as lifting power. Instead of the "nest" coming up, its weight almost swamped the barge. The mass was finally dragged to the shore, on a succession of flood tides, by tugs pulling on the barge as it eased the dead weight as much as its floating power could do.

The "nest" was found to be a truly catholic collection of anchors of every size, and of every age from seventeenth to nineteenth century types, and chain to match—some hundreds of tons of "scrap" in all.

CHAPTER V

SIDE-WHEELERS

1. RIVER AND CANALS

"THE BEAUTY of this noble stream . . . can hardly be imagined," wrote Charles Dickens of the upper St. Lawrence in 1842. It is almost as true today as it was a century ago—in spite of bridges, power dams, and deforestation—yet almost no one, except the crews of freight steamers, now sees the great river, in these days of rail and road travel. Glimpses from bridges, or from highways when they run near its banks, are poor substitutes for going down the river itself.

The channels among the Thousand Islands; the Brockville Narrows; the noble twelve-mile stretch from Brockville to Prescott, where the river is a mile or more wide and fifty to sixty feet deep with but one or two shoals or rocks; Lake St. Francis and its islands, whose names—Ross, Hamilton, Colquhoun—recall the Scottish pioneers of Glengarry; Lake St. Louis with the distant mountains; all of them have their own charm. The rapids, more than any other parts of the river, are to be seen and felt only when afloat.

Count Frontenac, in the seventeenth century, asked Louis XIV of France to provide him with a state barge for his official journeys on the St. Lawrence. From a canoe he had found it impossible to maintain, against the majesty of the great river, his dignity as the King's Governor.

We are here concerned, however, with the St. Lawrence in its early commercial aspect, when it was the only highway between the Great Lakes and the sea; for the fur trade route by the Ottawa was never commercial in the same sense. A French map, *Suite du Cours du Fleuve St. Laurent*, Paris, 1757, shows how little the river was then known, above Montreal. Its tributaries, except the Ottawa (Outaouis) are almost wholly absent. One exception is the "Catara-coui" with Fort Frontenac at its mouth. Only two of the rapids are marked, the Long Sault and Rapide Plat, and both are wrongly placed.

An Exact Chart of the River St. Lawrence, by Thomas Jefferys, London, 1775, is more complete. The tributaries are better indicated, and most of the rapids—they are called "rifts"—are accurately placed. The names of the rapids vary, in some cases, from those which became permanent. The Galops are called "the Galette," no doubt from Father Piquet's Indian mission, La Galette, at the head of the rapids; Lachine is "St. Lewis Fall." Notes of the rapids, on this map, are interesting (one "may be passed . . . with good pilots," another is "not to be attempted by strangers,") and necessary carrying-places (portages) are cited. (General Amherst, on his way from Oswego to join Haviland and Murray, investing Montreal, had taken his army down all the rapids except Lachine, in August, 1760. Enough of his soldiers were drowned—Parkman says eighty-four—to give point to the map's warnings.) The Thousand Islands, on this map, are a mere cluster of little dots. A map of Upper and Lower Canada by John Purdy,

London, 1821, shows tributaries, lake expansions, and the new settlements along the river; the rapids are fairly well indicated. The islands, however, are still very indefinite.

On modern charts, the many islands in the St. Lawrence are a very prominent feature of its course. Why were they so little known in the early days? Perhaps the first users of the river, and their successors, kept close along the north-west bank, and remained ignorant (or careless) of the fact that from it, often for miles at a stretch, the opposite banks are those of an island, or islands, and the main shore can be seen only at intervals. Or did the very size and scale of the great river postpone all accurate knowledge of it?

Certainly the size and scale of its formidable rapids postponed free use of the upper St. Lawrence for many, many years—from which it follows that the building of canals to avoid the rapids is of the very essence of the development of navigation on the river. In the 1780's, little canals were cut to pass the swiftest spots of the Cascades and the other rapids of the Coteau run. Their stone locks were 40' by 6', with 30" of water over the gate-sills, which sufficed for the *bateaux* of that time. In 1800-1804, these locks were enlarged to 110' by 12', with 4' depth of water. The Lachine canal was finished in 1825; its locks were 100' by 20' with 4½' depth of water.

The "Durham boats" of the 1820's and later, which used these locks, seem to have been a St. Lawrence River adaptation of the American canal-barge. They varied much in size: House of Commons papers, London, 1830, in reports from "the Canadas," speak of ". . . the largest Durham boats, which are 60' long and from 11' to 13' 6" broad, they draw 2' 6" and carry 10 ton." Other sources cite loads from four to eight tons. A report published in Cornwall in 1825, by one William McDonald, shows the difficulties of working these craft upstream. At various

points in the river—"opposite Monk's," "at creek near Colonel Duncan Fraser's," "At Armstrong's mill"—he suggests improvements: here he would clear away the larger stones, there lift a layer of limestone from the river-bed. He speaks of mooring-anchors and other aids; at one place the boats can be worked upstream only "by cattle viz. from 4 to 5 yoke oxen." Slow and laborious progress it must have been; little wonder that while freight from Liverpool to Montreal was £1 per ton, it was £2-10 per ton for the hundred miles from Montreal to Prescott.

Agitation for a complete set of larger canals, of uniform lock-size, began to be serious about 1830. It had two main sources. One, of course, was the old Upper Canadian demand for good communication with Montreal and the sea; the other was the success of the Erie Canal (1825) in diverting American lake commerce, which had been coming to Montreal, down the Hudson to New York. In the other direction, it attracted British imports for the Lake States.

This demand for more adequate canals was stimulated also by the fact that, from the early 1830's, small side-wheel steamers were being built to run between the rapids. Lacking canals, these steamers had to remain on the same section of the river upon which they had been launched; or if, say, a Lake St. Francis steamer ran the Coteau rapids, she could not come back up again.

The Cornwall Canal, from Cornwall up to Dickinson's Landing, avoiding the Long Sault, was begun in 1834 and finished in 1843. Its locks were 200' by 45', with 9' draft of water. The locks of Lachine Canal were enlarged in 1848 to match those of the Cornwall Canal; the Beauharnois Canal, between Lake St. Louis and Lake St. Francis, avoiding the four rapids of the Coteau run, also conformed to the same lock-size. In 1847 the three "Williamsburg Canals" were completed; they are the short single-lock

canal at Farran's Point, the Morrisburg Canal to avoid Rapide Plat, and the Iroquois Canal to avoid the Galops. Their locks were all of the new size—200' by 45', for 9' draft. Uniform lock-size and draft of water quickly caused a great increase in the commercial traffic on the river. One result of this increase was the establishment of a "Government Tug Line,"¹ for towing barges and other craft between the canals.

For some forty years, 9' draft of water ruled the navigation of the St. Lawrence above Montreal. Further development, completed in 1905, increased the locks to 270' in length, with 14' draft, making them uniform with the then Welland Canal. The river between the canals was dredged, where necessary, to allow for the new 14' draft.

2. THE STEAMERS

The typical "side-wheelers"—paddle steamers—of the St. Lawrence and Lake Ontario have long since disappeared. They bore little resemblance, least of all in size, to the few big steel-hulled passenger side-wheelers of a later day, such as the present *Kingston*, or the *Chippewa*. They were more like the smaller *Bohemian*, the last side-wheeler to run the St. Lawrence rapids with tourist passengers.

The first steamers on the Upper St. Lawrence were small craft, running on the quiet stretches between the rapids—from Lachine to Cascades Point, from Coteau Landing to Cornwall, and from Dickinson's Landing (or from Prescott) to Kingston. Early travellers—Sir Richard Bonnycastle was one of them—have described the broken journey from Montreal to Kingston and York (Toronto) on board these steamers and by road past the rapids. None of them has

¹See Chapter V, 3.

given any adequate description of the steamers themselves and their engines. The diary of a young Highland Scot named MacGregor who came out to Upper Canada in 1833, bound for Napanee, tells something of them, though not much. On October 16th, at Coteau Landing, he "boarded the steamer about 10 p.m. . . . woke early, berth full of water . . . porthole open . . . cabin was near the paddles . . . water splashing in through the night." On the 20th he "left Kingston on the Bay and River boat *Kingston* for Napanee . . . went below and tumbled into one of the berths." These entries, especially the first, seem to show that the cabins were below the main deck, within the hull, which in turn would show that the builders of these early steamers had not yet freed themselves from the salt-water practice of the time. It is impossible to reconcile going "below" with the appearance of the steamers of twenty years later. (It is also impossible, it may be said in passing, to make out anything whatever of the arrangements of these steamers from W. H. Bartlett's indication of them in his well-known Canadian drawings of 1842.) All in all, it was not luxurious travelling: the writer of a letter of 1833, Thomas Paddock, declared that he "would rather cross the Atlantic thrice than travel from Montreal to York. . . . The dangers in getting up the rapids are beyond all calculations."

Charles Dickens, in *American Notes* (1842), has something to say of the American side-wheel steamer. He was struck by the difference between the ocean-going side-wheeler of that period—he had crossed the Atlantic in one of them—and the steamer which carried him down Long Island Sound from New Haven to New York. "There is so much of them out of the water; the main deck enclosed on all sides . . . the promenade or hurricane-deck being a-top that again. A part of the machinery [he means the

top of the gallows-frame and walking-beam] is always above this deck . . . working away like an iron top-sawyer . . . seldom any mast . . . nothing aloft but two tall black chimneys." Instead of steering from far aft, as at sea in those days, "the man at the helm is shut up in a little house in the fore part, the wheel being connected with the rudder by iron chains." He calls a passing steamer, of the same type, ". . . a sullen, cumbrous, ungraceful, unshiplike leviathan." He speaks of a ladies' cabin, baggage and storage rooms, and the men's cabin with "three or four tiers of berths on each side."

Dickens was perhaps not so accurate as Kipling or McFeemight have been, in describing a steamer, nevertheless he probably gives a fair enough picture of the early American side-wheelers on Long Island Sound. Probably, too, all that he said would apply in a general way to the smaller St. Lawrence-and-Lake Ontario steamers of the period. The last of them, forty-odd years ago, were certainly "unshiplike" as compared with any salt-water craft, and, though hardly "cumbrous leviathans," they did make a great "fuss" as they pushed their bulk along. Their whole fabric shook as the great wheels slapped the water, the sound of them could be heard for miles in calm weather. It used to be said of a few of them, which had their wheels far aft—the *Passport* and the *Alexandria*, for instance—that "they dragged the whole river after them"; it was a mild adventure, in a small boat, to have one of them pass close at hand, and to negotiate the "swells" of the wide agitation of her wake.

Old pictures show that the early steamers were similar to one another in general design, but also that they varied much in appearance. All of them, that is to say, were flat-bottomed, shallow draft, wooden hulls; usually they were from 120 to 170 feet long and measured from 150 to 300

tons; all had wood-burning boilers, a single-cylindere beam engine—occasionally two engines, one for each of the paddle-wheels. But it is equally true that each of them had an individual air and silhouette. One might have a “clipper” bow; the paddle-wheels might be amidships or further aft; the mast or masts might be differently placed and rigged; the funnels, usually two, might be specially tall—and so on.

They carried both passengers and freight (and the mails from spring till autumn until the railways were built) and continued to be a part of the life of the river until the 1890's, though much decreased in numbers. By that time the last survivors had all become coal-burners, and were either tourist-steamers for three months in the summer, or tug-boats towing barges and rafts.

Twenty-five of these river steamers—more nearly thirty if successive steamers of the same name are counted—are found in the eighty-year records of the Island firm. A few were chartered, but most of them were owned. Eight or nine of them were built at Garden Island, the others at Kingston, Gananoque, on the Bay of Quinté shore, Montreal and other places.

A contract of November 27th, 1850, between Calvin and Cook and Thomas H. Oliver, a Quebec shipbuilder, is for a steamer's hull 180' long on deck, 28' beam, 10' 4" depth of hold. She was to be launched in the spring of 1851, and the contract price was £2,000 Cy., payable in seven instalments; five in cash at different stages of construction, and, upon completion, two notes due in six and nine months. It has been impossible to find either where this steamer had her boilers and engines installed, or which of the names of the 1850's is hers. She seems to have been the biggest river steamer the Island firm ever owned.

Several of the steamers which were purchased from other owners underwent considerable alteration at Garden Island to fit them for towing. The changes consisted chiefly in cutting away passenger cabins—glazed doors from some of them may be seen to this day, built into “the Big House.” The greatest number of these river steamers owned and under charter in any one year was twelve, in 1862; the average number from 1858 to 1878 was nine. After that there were fewer.

The first steamer launched at Garden Island seems to have been the *Prince Edward*, built in 1838 for the run between the Bay of Quinté and Kingston. Pride of place, among those built at the Island for the Island’s business, must go to the *Raftsmen*, launched in 1841. She was 100’ long, 22’ beam (32’ over the guards) and 7’ hold, she was built to tow rafts from Montreal to Quebec, for the Island firm, and for others as might be possible. “The Governor” sent her down the river under sail—she ran the rapids with long steering-oars at bow and stern, like a dram of timber. Her boiler was installed at Montreal, and her engine at Levis, opposite Quebec. She had to remain below Montreal for several years, until the canals were completed; she wintered at Sorel. “The Governor” used to tell of his first sight of the little *Raftsmen* at Quebec; looking down on her from the Durham Terrace (forerunner of the long Dufferin Terrace), “she looked,” he said, “like a big pumpkin-seed.” In the winter of 1876-1877 the *Raftsmen* was remodelled at the Island; her guards and her paddle-engines were removed and she became the screw-tug *William Johnston*. She was later lengthened, and rebuilt once more—part, at least, of her original fabric was afloat for nearly ninety years.

Among others built at Garden Island were the *Wellington* in 1855, the *Hercules* in 1856, the second *Traveller* in

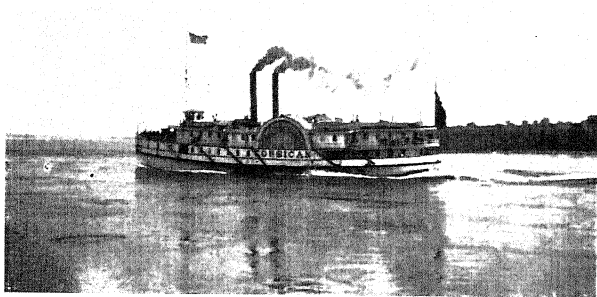
1876; the second and third *Chieftain*, 1875 and 1906; the *William*, successor to the *William the Fourth*, in 1860; the *John A. Macdonald* in 1866, the *Hiram A. Calvin* in 1869; the *Parthia*, successor to the second *Traveller*, in 1896.

The names of the sellers of the various steamers purchased by the Island firm, and the dates of purchase, are not always traceable. The *America* and the original *Traveller*—she had two engines, her successors only one—were bought from Donald Bethune of Toronto in 1846 and 1851. The *Highlander*, a former “Mail Boat,” and already under charter to Garden Island, was bought in 1865. The *Sir Charles Napier* was acquired in 1855. The *Gildersleeve* and the *Bay of Quinte* were bought, in 1862 and 1871, from the Gildersleeve firm of Kingston. The engine of the *Gildersleeve* went into the second *Chieftain* (1875).

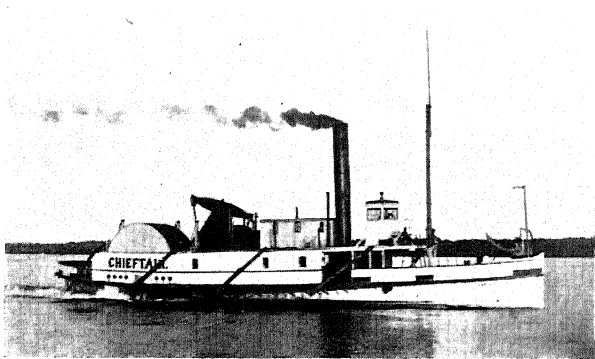
Some of these steamers were well-known craft. The *William the Fourth*, built at Gananoque in 1831, was popular in her passenger-carrying years—she carried the diarist MacGregor² from Prescott to Kingston. Her engines were built by Bennett and Henderson of Montreal. The Gildersleeve steamers had traded between Kingston and Bay of Quinté ports. No doubt others of them—the *America*, the *Napier*, the *City of Hamilton*, the *Charlevoix*—were not unknown before their years in the Island firm’s service.

A few authentic figures of the hulls and engines of these side-wheelers have survived. The *Highlander* was 173’ long, 24’ beam (perhaps 40’ over her “guards”) and 9’ deep, measuring 300 tons; her single cylinder was 40” in diameter, 8’ stroke; turning 17 revolutions per minute under 20 lbs. steam pressure, her engine developed 116 horsepower. The *America* was 141’ by 19’ (35) by 9’; her registration papers say she was schooner-rigged, with a

²See p. 114.



LAKE AND RIVER "MAIL BOAT" *Corsican*, BUILT ABOUT 1855



RIVER STEAMER *Chieftain*, BUILT AT GARDEN ISLAND, 1875

standing bowsprit and a scroll figurehead; her engine was 40½" cylinder, 8' stroke, 16 r.p.m., 20 lbs. steam, 116 H.P. The *William* was 135' by 25' (41) x 10'; 55" cylinder, 8' stroke, 14 r.p.m., 16 lbs. steam, 220 H.P. The *John A. Macdonald* was 139' by 23' (39') by 9', 268 tons; the *Hiram A. Calvin* was 143' by 42' (over the guards) by 9', 309 tons. All five, it will be noted, were smaller than the Quebec-built hull of 1850-1851.

So much for the origins and physical details of the side-wheelers. What of their work? Nearly all of it was towing: the Island rafts on the river, other owners' rafts on the Lake³, schooners and barges in the Government Tug Line service. That service, for twenty-five years or more, provided perhaps four-fifths of the steamers' work. As already said, however, most of the purchased steamers had been freight-and-passenger carriers; charters for "freighting" by them, and by one or two of the Island-built steamers, are not uncommon, in the records of the firm, down to the later 1860's.

David Sutfin wrote to Calvin and Breck, from Picton, September 21st, 1857, asking them to send him the *Traveller* "to load with cattle and sheep. I think you said you would carry a load of stock to Oswego for \$150 for me . . . send me word by letter or telegraph what time you will be here. . . ."

"The *Hercules* passed down here last night loaded with flour for Quebec, under charter to Holcomb, Henderson and Co'y," says a letter of April 23rd, 1860, from Calvin and Breck to their Quebec agent, who is to collect from the consignees \$65 per day running time from a given date until the *Hercules* leaves Quebec, "except Sundays which is \$20 per day in case she lays still," if not, Sundays are to be \$65.

³See Chapter V, 5.

On February 11th, 1864, J. H. Henderson of Montreal was promised the *Wellington* "for freighting, at a very reasonable rate," when she is not on duty with the Tug Line. In 1866 Captain McGrath of the *Wellington* was summoned to the Island from Prescott, to see Calvin and Breck about putting his steamer "into freight business."

This occasional competition with the regular freighting steamers is not found in the Island records after the 1860's. If it had developed, and become serious, it would probably have caused friction. The actual situation was the exact reverse. Calvin and Breck, writing to the Converse firm in Montreal in the middle 1870's, asked to have an order of heavy rope sent up by one of the Mail Boats, which "cheerfully call here and land anything they have for us."

A great variety of small jobs is to be found entered, among more serious duties, in the "Towage Books" of the old side-wheelers. In the spring, before the days of steam-winches, they distributed the horses to the schooners.⁴ With a steam-hose they thawed out the schooners' centre-board boxes, which would remain frozen after the river ice had gone. Scores of entries record towing schooners from Garden Island out to Snake Island, to Nine Mile Point, or even as far as "the Ducks," or Long Point. "Ferry for doctor," "ferry Kingston to Gananoque," "ferry to Kingston," are typical entries. There is some good phonetic spelling in these old books; Lishsheane (Lachine), Preskele (Presqu'île). After a vessel's name is, "pulan her of the wase"; that is, "pulling her off the ways" where she had been hauled out over the winter, for repair.

But they wrote down everything their steamers did, these captains, whether correctly spelled or not. At the end of each year's list, in each steamer's book, there is a

⁴See p. 56.

rough memorandum assigning prices to each item of work, then adding up the totals to be charged to various accounts and to be credited to the steamer. Bookkeeping was simpler, seventy years ago.

Inevitably there were accidents, in the work of the Island's side-wheelers; it is surprising that there were not more, in view of their many years of service. Often they were engine breakdowns—for example, a broken piston in the *John A. Macdonald* in 1867. An engine failure in the *Wellington* in 1873 caused her and her raft, which she had almost landed, to be carried back upstream from Sillery to Cap Rouge on the flood tide; no timber was lost. In June, 1876, the *Traveller's* cylinder cracked; the repair, by "banding," was the usual one in that period of low steam pressures.

In October, 1866, the *Highlander*, towing a raft, was run into above Sorel by the steamer *John Bull*, which sank. The *Highlander* was little damaged; she seems to have had the right of way, but there is no record of any inquiry into the accident. On the evening of October 21st, 1881, the *Traveller* was run into and sunk, in shallow water (below Cornwall) by the *Passport*. The *Traveller* was raised by the Garden Island wrecking crew, taken to the Island, hauled out, repaired and launched again on December 2nd. Calvin and Son's bill to the owners of the *Passport* was nearly \$10,000; the actual terms of settlement have not been found. The last collision accident, in the Island records, was the sinking of the *Chieftain III* by an ocean-going collier, a few miles above Quebec, in 1911.

The most tragic accident in the records of the firm, from the point of view of its founder, happened on the morning of October 9th, 1858. While she was towing a disabled steamer, the *New Era*, up Rapide Plat, the boiler

of the *Hercules* exploded, killing, among others on board, D. D. Calvin, Junior ("Dexter"), aged twenty-two. It is said that "the Governor," who was past sixty, had intended shortly to hand over the management of his business to this young man, and to retire—whether he would actually have done so is another thing. It is certain that the son's death was a terrible blow, coming when the father was firmly established after a long, hard struggle. It was also a heavy blow to the business itself, for the second son, H. A. Calvin, was a mere boy. Not for many years—years of great opportunity and activity—could he replace his lost brother.

The stout heart of "the Governor" is well shown in his dealings with the disaster to the *Hercules*. He sent Dr. Meagher down from Kingston to attend the injured; afterwards he provided for the dependants of those of the crew who were killed or disabled. He went himself to the scene and took part in the recovery of his son's body. Later, using two Island steamers, the *America* and the *Gildersleeve*, he superintended the work of raising the *Hercules*—she lay sunk and half-submerged—and making her safe for the winter. (During this time he was the guest of his friend, Isaac N. Rose, Canal Superintendent at Morrisburg.) In the spring of 1859 the *Hercules* was again floated, and special pontoons were fitted under the side-wheeler's overhanging "guards." The *Highlander* towed the *Hercules* up to Garden Island, she was rebuilt and put into service again.

The *Hercules* and the *Highlander*, rescued and rescuer of 1859, came to their end together. During the night of December 8th, 1871, they were "burned to the water's edge" as they lay in winter quarters at Garden Island. Rebuilding was impossible; their machinery was taken out and the remains of their hulls put out behind the Island, at Pea Point, where traces of them may still be seen today.

3. THE GOVERNMENT TUG LINE

We have seen that the completion of the St. Lawrence canals in 1847, which allowed vessels drawing 9 feet of water to navigate between Montreal and Kingston, created an immediate demand for steam-towage between the canals. At the end of the navigation season of 1848—during which the Island steamers had towed vessels between the canals as opportunity offered—the firm approached the Government with a question on the subject of setting up a regulated towage service.

“Would the Government,” Calvin, Cook and Company wrote to the Hon. William Hamilton Merritt, President of the Executive Council, November 29th, 1848, “feel inclined to encourage us or any other House in putting on a line of ‘Steam Tug Boats’ from Montreal to Kingston?” They offer four steamers, the *William the Fourth*, the *Chieftain*, the *Raftsmen* and a fourth which was under construction and would be ready for the next season. They ask for a guarantee “that the four boats should clear, over and above expenses, say £3,000.” This “guarantee for the success of the project” is asked because they foresee opposition from those forwarders who own tug-boats. What is “the prospect of an arrangement with the Government?”

Mr. Merritt’s reply of December 5th, and his later letters, have unfortunately been lost, but the progress of the negotiations can be traced in the letters to him. The Government proposed that the towage should be only from Lachine to Prescott, for on December 9th Calvin, Cook and Company wrote to say that they thought towage was needed all the way to Kingston, as they had suggested. The river from Prescott to Kingston “is not beating ground⁵, vessels must have a fair wind or a steamer.”

⁵See p. 20.

Towage rates are then proposed: for light craft (that is, carrying no cargo), upwards, 1/6 per mile on Lake St. Louis and Lake St. Francis, and in slack water; 4/- per mile up the swift water from the head of the Cornwall Canal to the foot of the Galops Canal; for loaded craft, downstream, 1/- per mile. The last rate is said to be equal to 9d. per barrel of flour, Kingston to Montreal, as compared with the prevailing rate of 1/-. All these rates are for river craft; for lake craft, "more heavily built and of loftier rig," an additional 50 per cent. is suggested.

The next letter, December 21st, declares that the proposed rates are "as near right" as Mr. Calvin can set them, but the firm offers to charge by the tonnage of the vessels towed, if that method be preferred. Rates in American currency are proposed: 3 mills per ton per mile in quiet water, and 6 mills from Dickinson's Landing (the head of the Cornwall Canal) to Prescott, up-bound, for vessels of 100 tons, with other tonnages in proportion. The bonus asked for is then reduced from £3,000 for four steamers (that is, including the Prescott to Kingston run) to £2,000 for three steamers. Or Calvin, Cook and Company will charter the three steamers to the Government for £2,000, for the season of 1849, the Government to provide "wood and all other expenses."

A letter of February 6th, 1849, tells Mr. Merritt that if the Government will make a contract for four years, the firm will accept a sliding scale of bonus payments—£2,000 for 1849, £1,750 for 1850, £1,300 for 1851, £900 for 1852. Another letter, February 15th, says they cannot make any lower offer, and renews the offer of December 21st, adding that if they undertake the towing "it will be done and well done," also that if more than three steamers are needed they will ask for no further bonus. On March 13th, the

firm cut the suggested bonus from £2,000 to £1,750. Finally, March 29th, writing to Thomas A. Begly, Secretary of the Department of Public Works, Calvin, Cook and Company "will put on a line of Tug Boats in accordance with the notice of your Dept., provided the Government will allow us a bonus of £1,750 for the season."

The Government accepted this offer. In Montreal, on May 4th, 1849 (nine days after the "Elgin riots" and the burning of the Parliament buildings) the agreement was signed. The parties to it are D. D. Calvin of Garden Island (Kingston), Hiram Cook of Hamilton, and T. H. Dunn of Quebec, three partners trading as Calvin, Cook and Company, and Her Majesty Queen Victoria, represented by the Commissioners of Public Works of the Province of Canada. Though it seems fair to assume that the agreement grew directly out of Calvin, Cook and Company's proposals, the Government took to itself the credit for initiating the service. The preamble of the agreement sets out the Commissioners' desire to facilitate "the passage of all vessels . . . between Prescott and Lachine on the main line of water communication through the Province by the River St. Lawrence." The contractors' steamers are to tow, "during the navigation season of 1849, all and any vessels" that ask for towage, through Lake St. Louis (Lachine to Beauharnois), through Lake St. Francis (Valleyfield to Cornwall) and from the head of the Cornwall Canal (Dickinson's Landing) to Prescott. Each of these three runs is called a "station." The steamers must be able to tow vessels drawing 8 feet of water, downstream, and 7 feet, upstream, at the rate of five miles per hour. They "shall start from Lachine, from Prescott, and from the intermediate station, on every alternate day," and their service is to begin on May 10th. Neither the contractor nor the officers of their steamers "shall give any

preference in favour of any party or vessel whatever, except to Boats carrying 20 or more passengers or emigrants on board"—which is a hint of the conditions of the day, life on these little tow-barges could not have been luxurious.

The rates to be charged for towage are not very different from those proposed in the contractors' letter of December 5th, 1848: for vessels 100 tons and under, 2/- per mile upstream and 1/- downstream; for those of 200 tons and under, 2/8 and 1/4; for 300 tons and under, also for vessels of Welland Canal size, 4/- and 2/-. Various special provisions follow: the full charge for any station must be paid for towage over part of it, because of the cost of stopping at intermediate points; rates of 4/-, 6/- and 9/- per mile (according to the three tonnages named above) may be charged for towing from Dickinson's Landing to Prescott any vessels which have not been towed on the two lower stations; no higher rates than those stated may be charged, under penalty of forfeiting the bonus. The tugs may cast off vessels in tow because of stress of weather, or if they are not properly handled, without affecting the agreement. After this comes the curious declaration that the rates for towage "are not intended to affect the charges . . . for towage by Horses through the Beauharnois or Cornwall Canals." The reason for this is obscure, and why was the Lachine Canal not included? A weekly statement of towages, vouched for by the steamer captains, is to be made to the Government; this onerous requirement was soon relaxed, in later years only an annual return was made.

Finally—and it is a clear indication of the poverty of the country—the bonus of £1,750 was to be paid, not in money but in Provincial Debentures; £500 on August 1st, £500 on October 1st, £750 at the close of navigation. The agreement is signed by D. D. Calvin for himself and his partners, and for the Public Works Department by the Hon.

Etienne Taché as Chief Commissioner, and by Thomas Begly as Secretary.

This agreement has been set out in some detail, for two reasons. First, it is the beginning of an interesting contract for the performance of a public service, between a private firm and the Government of the Province of Canada, and later of the Dominion. Second, it is an example of the energy with which the Island firm extended its business. A letter of 1850 says that they "took the Line at exactly half the price of the lowest tender made by any other party." Also, a private letter of D. D. Calvin (1852) says that he lost money in the first three years of the Tug Line, 1849, 1850, 1851. It was fortunate for him that the Government did not take up the "sliding scale" offer made to them February 6th, 1849. In later years, however, the contract became very valuable.

The Garden Island firm held the Tug Line contract nearly every year from 1849 to 1874, when it was discontinued. There was no service in 1852. About the three years 1853-1855 there is a certain indefiniteness in the available records, which correspondence with officials of the Public Archives of Canada has not fully cleared up. The Archivists say that in 1853-1855 the contract was held by Thomas Maxwell of Kingston; the Island records show that Calvin and Cook chartered three steamers to Maxwell for the 1853 season—the *Charlevoix* at £600, the *Traveller* at £800, and the *Chieftain* at £450. There is also a note that in 1855 Calvin and Breck applied to T. G. Ridout of The Bank of Upper Canada, Toronto, for a loan to be secured by the Tug Line Bonus of £6,000—which must mean that the money would be paid to them, not to Maxwell. It would seem that though Maxwell may have been the holder of the contract, the work was really done by the Island firm in the years 1853-1855.

The Tug Line contract was in no sense a monopoly; the river was free to all, the Government Line had constantly to meet competition. Its object was to keep the towage rates down—in the words of a letter of the contractors in 1850, “to prevent large monopolies in the carrying trade.”

In 1851 the Line was extended to Kingston, as Calvin, Cook and Company had first recommended. This meant a fourth steamer, for the Prescott-Kingston “station”; then, as the business grew, there had to be two steamers on each station, giving service in both directions every day. The subsidy or bonus was increased to meet this enlarged service; it stood at £6,000 Cy. (\$24,000) for the years 1855 to 1860; it was cut to \$20,000 in 1861 and to \$12,000 from 1864 onwards. These reductions no doubt followed from the firm’s increased receipts for towage; for example, the receipts in 1864 were \$33,200 and in 1872 \$57,000.

The rates for towage went through various changes. From the beginning they were by the mile; the “stations” were set at 19 miles for Lake St. Louis, 40 miles for Lake St. Francis, 41 miles from Dickinson’s Landing to Prescott, and 61 miles from Prescott to Kingston. In the original agreement the charges were rather arbitrary; it was unfair that a vessel of, say, 220 tons should pay the same amount as one of 300 tons. The charges soon came to be based upon the towed vessel’s beam and draft of water, and not upon her tonnage—a much fairer method. A printed schedule of 225 rates (based on 15 breadths of beam and 15 drafts of water) was issued by the Commissioners of Public Works in 1853. These rates vary from 10d. Cy. per mile for a little craft of 12’ beam and 2’ draft, up to 4/8 Cy. for one of 26’ beam and 9’ draft. These are upstream rates, downstream the charge was one-third instead of the earlier one-half.

In later years, separate sheets were printed for each "station"; these set out, not the rates per mile, but the actual amounts payable for towage on that "station" for each combination of beam and draft. There are 180 amounts on these sheets, as against the 225 rates of 1853. Beam runs from 19' to 30', instead of 12' to 26', but the drafts of water are the same, 2, 2½, 3, 3½, down to 9'. By dividing the "station" mileage into the amounts payable, the rates work out at 25 cents per mile for 19'

Tariff of Towage Upwards, Dickenson's Landing to Prescott, 41 Miles.

Draught of Water.	BREADTH OF BEAM.												Draught of Water.
	19 ft.	20	21	22	23	24	25	26	27	28	29	30	
2	\$10.46	\$11.07	\$11.70	\$12.31	\$12.92	\$13.54	\$14.15	\$14.76	\$15.39	\$16.00	\$16.61	\$17.23	2
2½	11.70	12.39	13.04	14.15	14.76	15.39	16.00	16.61	17.23	17.85	18.49	19.12	2½
3	12.54	14.78	15.39	16.00	16.61	17.23	17.85	18.45	19.09	19.72	20.34	20.98	3
3½	14.76	15.39	16.00	16.61	17.23	17.85	18.45	19.08	20.50	21.12	21.77	22.39	3½
4	16.00	16.61	17.23	17.84	18.45	19.09	20.32	20.94	21.56	22.18	22.80	23.43	4
4½	16.61	17.23	17.84	18.45	19.09	20.32	20.94	21.56	22.18	22.80	23.43	24.05	4½
5	18.45	19.09	20.30	21.53	22.77	23.38	24.61	25.83	26.91	28.15	29.37	30.59	5
5½	19.09	20.30	20.99	22.14	23.38	24.61	25.83	27.07	28.31	29.54	30.78	32.01	5½
6	20.92	21.53	22.14	23.38	24.61	25.83	27.07	28.30	29.52	30.76	31.99	33.24	6
6½	22.14	22.77	23.38	24.61	25.83	27.07	28.30	29.52	30.76	31.99	33.24	34.46	6½
7	22.77	23.38	24.61	25.83	27.07	28.30	29.52	30.76	31.99	33.24	34.46	35.69	7
7½	23.39	24.61	25.83	27.07	28.30	29.52	30.76	31.99	33.24	34.46	35.69	36.91	7½
8	25.23	25.83	27.07	28.30	29.52	30.76	31.99	33.24	34.46	35.69	36.91	38.15	8
8½	26.46	27.07	28.31	29.53	30.76	31.99	33.24	34.46	35.69	36.91	38.14	39.37	8½
9	27.68	28.30	29.52	30.76	31.99	33.24	34.46	35.69	36.91	38.14	39.37	40.59	9

GOVERNMENT TUG LINE TARIFF FOR ONE OF THE "STATIONS"

beam and 2' draft, 63 cents for 24' beam and 6' draft, and \$1 for the largest vessel listed, 30' beam and 9' draft. They are about 10 per cent. lower than in 1853.

Special points in connection with these later rates are: that over 20' beam shall be counted 21', and so on; that vessels which have paid full towage from Dickinson's Landing to Prescott shall pay only two-thirds of the tariff from Prescott to Kingston; that if the steamer furnishes the tow-line, the vessel towed shall pay 5 cents per mile for the use of it.

The routine of payment for towage was that the agents of the Island firm, or its steamer captains, issued "tickets," which were printed forms bound in books, like cheques. These entitled the vessel named to towage between two specified points—the order of the points would of course show whether upstream or down. These tickets were handed to their employers by the steamer captains, who often endorsed on them the times of leaving and arriving with the towed vessel. Many of these tickets were paid for when issued, but most of them were collected at intervals from those vessel-owners who used the Tug Line service regularly. Some of these owners were allowed to "ticket their own barges."

In the early years the firm's captains were apparently allowed to issue towage tickets on credit, in certain cases, but they seem to have made mistakes in judgment. There are not a few letters from the firm to its various captains on this point; "Do not let him get any deeper into debt," says one letter, about a barge-owner who was struggling to pay his small bills by supplying the steamers with wood fuel—the early barter method was creeping in again. From 1866 onwards, this credit through the captains was drastically reduced.

There were few complaints from its patrons about the service of the Tug Line. From year to year its work was "done, and well done," as the contractors had promised to the Government in 1849. There were complaints, nevertheless; many of them arose from the bad steering of the box-like barges when towed downstream, loaded. In one such case, standing upon their original agreement, the contractors acknowledged no responsibility for the stranding of a barge, "and as to getting her off, we will do no such thing," they wrote to her owners. More serious were the attacks addressed to the Government. A letter

of September 8th, 1862, Calvin and Breck to T. Trudeau, Secretary of Public Works, declares roundly that "... the real and true reason" of these attacks "is to embarrass the working of the Government Line," to try to bring it into disrepute and to have it abolished. They go on to argue that this would leave towage on the river to private interests which would at once raise the rates (to the detriment especially of the smaller barge-owner) up to or above the point from which they have been reduced by having to compete with the fixed towage rates of the Government Line.

The Government, at any rate in the 1860's, was none too prompt in paying the Tug Line bonus. In 1864 the instalment due on August 1st was overdue; on August 29th Calvin and Breck wrote to John Storey, their agent in Quebec (where the Government then was) asking if it had been paid—"If you can get audience with the Attorney General West, the Hon. John A. Macdonald, we think he will put matters right without delay." In March, 1865, part of the 1864 bonus was still unpaid; "... the Government has kept us out of the money long enough," the firm wrote to Storey, who is to try to "collect without delay." There was less of this difficulty as the country prospered and money became more plentiful.

There is no sign in the firm's records that any of these difficulties checked the effort to keep the Tug Line contract. The lobby for its renewal is prominent in its earlier years; there are many letters to friends who have influence with the Government, and "memorials" to the Government are common. In 1862, C. C. Farran was to arrange for one in the Farran's Point and Morrisburg area; D. B. Maclellan circulated "the Cornwall memorial." In 1863, D. D. Calvin asked a friend to try to secure signatures from "some of the particular friends of John Sandfield [Mac-

donald] who are also my friends.” Next year, April 5th, 1864, Calvin and Breck wrote to Captain Blodgett of the *Traveller*, “Tug Line is safe . . . Sandfield Macdonald is out of the Govt. but we have good friends in the new Govt., as Hon. John A. Macdonald and Hon. Mr. Campbell⁶ of Kingston.” In later years the contract was often renewed without public competition, and once at least for a period of three years. But all things have their term—on June 28th, 1874, the Tug Line contract was rather unceremoniously cancelled by the Mackenzie government. For a year or two hope of revival lingered on, but even the Conservative victory of 1878 was of no avail—Sir John Macdonald wrote to Calvin and Son, December 28th, 1880, that “the Government has no intention of subsidizing” any firm for towage on the St. Lawrence.

There remain one or two points. The first is found in a letter of Calvin and Cook to the Hon. W. H. Merritt, October 17th, 1851; they had offered several barge-owners, in the autumn of 1850, to save them the slow trip down the Cornwall Canal by running their craft “over Long Sault North Channel, but could not get one to consent, . . . Mr. Calvin was determined to make the trial, . . . a few days ago we loaded a barge with staves and ordered her over by the steamer *Chieftain*. Enclosed we send you the Captain’s report . . . which you will perceive is favourable.” A later letter, November 5th, tells Mr. Merritt that the *Chieftain* drew 5’ and the barge 7’ with 280 tons of cargo; Mr. Calvin thinks that 8½’ draft would be safe in the North Sault, and that four vessels could be taken down in one tow. Anyone who has seen the wild water of the “Long Sault North Channel” from Highway

⁶Alexander Campbell, M.L.C., Macdonald’s law partner and K.C.M.G., 1879, Lieut.-Governor of Ontario, 1887-1892.

No. 2 below Dickinson's Landing, will acknowledge the boldness of this experiment of 1851. It is not surprising that it did not become a regular run.

Another point is that the Tug Line steamers had the "right to the canals to turn about in, and no vessel [may] hinder them when doing so." A captain of today would certainly be astonished if he encountered another steamer "turning about" in a canal.

A third is a story of late November, 1871. Three Tug Line steamers, with their barges, were caught by an early winter—there was 5 to 7 inches of ice in the Morrisburgh and Iroquois canals. Isaac Rose, the canal superintendent, broke up the ice by drawing off the water and then "letting it in again to allow our steamers to crush their way through" with their tows, and go on up to safe winter quarters in the upper river.

4. H.M.S. *Hercules*

Relations between Canada and the United States were not very happy in the 1860's. Behind them lay British sympathy with the South during the Civil War, and after the war the struggle over the *Alabama* claims. In 1866 the American Government terminated the Reciprocity Treaty with Canada; Canada was troubled by Washington's toleration of Fenian activity along the border.

Garden Island, though on the border, seems to have been occupied with its own affairs. "There is no Fenian excitement here, we scarcely ever hear the thing spoken of," says a letter of January 16th, 1866. Two months later, however, a change had come. The Fenian invasion was then looked for on St. Patrick's Day, and on March 14th Calvin and Breck wrote to one of their steamer captains, "There is a good deal of excitement . . . about the Fenians. Our Volunteer Company are doing duty here on

the Island." In another letter these Volunteers are said to have been "put into service by the Canadian Government." On June 7th, writing to James Dawson, Breck thinks that the "Fort Erie affair" and the skirmish at Ridgeway (June 2nd) will be enough to keep the Fenians "on the American side after this."

The first sign, in the letter-books, that Garden Island would be drawn into "active service"—apart from the work of the Volunteer Company—is in a letter of September 1st, 1866, to Cook Bros., Toronto. Calvin and Breck cannot name a price for chartering the *Hercules* to them, for they "expect her to go into Government service after she finishes her present tow." On September 14th the *Hercules* was chartered to the Government until the close of navigation, at \$45 per day; she became a unit in the fleet of improvised gunboats which were put on patrol duty on the St. Lawrence and the Lakes—the owners left their Captain (William Miller) and one other man on board; the pay of the "naval" crew and all other expenses were borne by the Government, who had an option, which was not taken up, to buy the *Hercules* for \$22,000 at the end of the charter.

The firm wrote to Captain Miller, October 1st, telling him that they had heard "the *Hercules* looks well as a Gun Boat." They hope that "she suits the officers" and that Miller is getting along "comfortably and agreeably" with them. A fortnight later they are pleased that Miller is soon to "come up as far as Kingston with H.M.S. *Hercules*." She was then at Prescott.

There is something slightly comic in all this. It is very difficult, knowing something of their successors of thirty years later, to picture these wooden side-wheel river tug-boats as warships. A contemporary description of one of them, H.M.S. *Royal*, says that she carried a naval crew of

WANTED Towage per CALVIN & BRECK'S Steamers
 from *Tahiti* to *Papeete*
 for *Barge Prasituro*. It being hereby agreed and
 understood that Calvin & Breck shall not be responsible or accountable
 for any damage or accident which may occur to said Vessel.

Machine
June 7th 1873 *Captain J. + Charles*
Maak

A "TOWAGE TICKET"

RECEIVED FROM THE STEAMER H. A. CALVIN
 Nov 13th 1873
 Received from N. Jensen
 8 1/2 cords hard Wood, at 4.75 per cord.
 Cords soft Wood, at per cord.
 Capt. S. Anderson

No. 155 Steamer H. A. Calvin
 Nov 13th 1873
 Received from N. Jensen
 8 1/2 Cords hard Wood, at 4.75 per cord.
 Cords soft Wood, at per cord.
 Capt. S. Anderson

A "WOOD TICKET"

fifty and mounted four guns, two forward and one on either beam. Around her fore-deck were wooden bulwarks, six feet high and nine inches thick, covered with iron plates, and pierced for the guns. In June, 1866, the Garden Island steamer *America* pulled this H.M.S. *Royal* (and her naval crew) off a shoal in Lake St. Francis, near Summerville. The names of Captain Hood, of H.M.S. *Pleidades*, and General Lindsay, are mentioned in one of the letters about this little "wrecking job."

Correspondence with George H. Wyatt, Gun Boat Agent, Toronto, shows that the Government wanted the *Hercules* to go to Montreal in the late autumn, to give up her guns and other naval gear, but a letter of November 23rd, 1866, Calvin and Breck to Wyatt, says ". . . the *Hercules* has arrived at the Dock Yard, Kingston, to lay up." (Navy Bay, where the Royal Military College now stands, was the dockyard site.)

There was some difficulty over the payment of ship-keeper's wages during the winter of 1866-1867, but in the spring the *Hercules* was again chartered to the Government—this time for the whole season of navigation, 1867, at the same rate of \$45 per day. Toronto was her "base," it is said, for part of the summer. It does not appear that her duty ever took her into any danger, or that her guns were ever used—except in practice? They perhaps fired a salute on the first "Dominion Day," July 1st, 1867.

The bills rendered and paid, for the two charters of the *Hercules* as "H.M.S.," amounted to a very considerable sum. Little wonder that a private letter of 1867 says of this interlude that "it pays much better than towing."

A letter of February 16th, 1878, from I. A. Breck at Garden Island to D. D. Calvin at the Ontario Legislature, is perhaps related, though remotely, to the *Hercules* and

her iron-plated oak bulwarks of 1866-1867. Breck fears that the *Garden Island*⁷ "would not answer for converting into an ironclad, as you suggest," for they must "be built with that in view." The ship might be used for "a government transport, and in case of war would like enough be saleable to Govt. for that purpose. . . ."

Let us not forget the Volunteers of Fenian days. Thirty-eight names appear on the roll of "The Garden Island Naval Company." Henry Roney, foreman in the shipyard, was Captain, and there was a strong Irish flavour in the names of his men—Quinn, Malone, Kennedy, Donnelly, Snell. The pay-sheet shows that all alike had 25 cents a day from the Queen, through her Canadian Government. Their headquarters were in a house—perhaps Roney's—near the top of the village road. Where did they drill? What were their duties? All the stories heard in youth about their exploits have passed out of mind—except two. The first is that a certain very familiar desk, long in the firm's office at the foot of the island, had come "down the road" from the Naval Company's headquarters, and was still in fact Government property. The second is this. About the middle of March, 1867, the Garden Island Naval Company marched the two miles across the ice and took part in a parade through the streets of Kingston, which was then a "garrison town." When the parade was over, Roney started back for the Island with his men. As he "took the ice" at the foot of William Street, he looked back at his followers—one faithful tee-totaler marched behind him, the rest of his men were in the taverns along the route.

It would be interesting to know how the men were clothed for that parade. A letter of Calvin and Breck to

⁷See note, page 34.

the Hon. John A. Macdonald, March 17th, 1866, is an appeal for uniforms—the men's "ordinary labouring clothes are . . . insufficient to protect them from exposure, night and day, without, we fear, endangering their health. . . ." No uniform had been authorized for Naval Companies, but "they were promised infantry clothing, which, however, has not yet been furnished." Can anything be done? "John A." evidently acted quickly. On March 22nd Calvin and Breck wrote to him again—"Confidential" this time. They are sorry to trouble him, knowing "the pressure . . . of more weighty affairs," but they plead "sympathy for the men. . . . The overcoats arrived yesterday . . . mostly old dilapidated garments . . . bullet holes through some of them . . . would cause ridicule should the Company be called upon to show themselves in public." One suspects "John A." of having a little joke at the expense of his good political friend, "the Governor."

5. LAKE TOWING OF RAFTS

The Island firm did not risk its own timber, either on Lake Ontario or Lake Erie, in the form of rafts. The only exceptions to this rule are the early cribs of pine masts from Lake Erie⁸, and possibly some from ports on Lake Ontario. They towed rafts of timber freely from the Bay of Quinté, but "the Bay" is really sheltered water. There is only a brief exposure to the lake winds at "the upper gap" between Prince Edward County and Amherst Island, and another at "the lower gap" from the foot of Amherst Island to Kingston harbour.

To digress, for a moment, from timber and rafting for the Quebec market—it is interesting to find that the export

⁸See p. 86.

of saw-logs from Canada to the United States was already going on in the 1850's. A letter of 1853 on this subject shows, as might be expected, that to tow logs in a boom, on Lake Ontario, was thought to be even more risky than to tow rafted timber. Calvin and Cook offered to tow, for David Roblin, booms of not more than 3,000 logs each down the Bay of Quinté from the mouth of the Salmon River to Macdonald's Cove (at the east end of Prince Edward County) for £25, and from there to Oswego, N.Y., for £50. "We guarantee nothing," says their letter, "and we are to be paid in case of wreck . . . also for any lost time at £12-10 per day."

This wholesome respect for the dangers of towing on the open lake was no doubt based on two facts. The first was that the Island firm was from the beginning chiefly concerned with oak timber, which could not possibly be rafted down the lake, because almost every piece of the high-grade oak of long ago would have sunk like a stone if it had worked loose from the pine which would have had to be used to float it. Secondly, the firm would know of the constant wrecking of pine rafts on the Lake; the records show that they were asked, at times, to have the crews of their schooners watch for and report timber loose on the Lake from rafts.

Its own policy in the matter, however, did not prevent the Island firm from towing rafts on the Lake for timbermen who chose to take the risk. It did this work regularly for some thirty years, beginning in the late 1840's—perhaps not every season, but very often, nevertheless. On May 3rd, 1848, Calvin, Cook and Company offered to tow timber for A. C. Thompson from Port Dalhousie, Toronto and Whitby to Garden Island, the rates to be \$175, \$150, and \$125 each for drams 45' by 140'; if the drams were larger, the rates would be higher in proportion. Teh

William the Fourth would do the towing; an immediate reply is asked, because, says the letter frankly, the steamer "must undergo some repairs to her hull" before she can work on the Lake.

In 1857, one of the firm's steamers towed a raft of elm timber from Port Hope to Prescott for Edsel and Wilson. A self-confident letter of 1859 tells the nervous owner of a lake raft that ". . . the *Hercules* is the best steamer afloat for the purpose . . . Captain Miller knows more about that kind of work than any other man in America." This confidence was not unjustified. Every reasonable precaution was taken; for example, Calvin and Breck sent one of their own men (a French Canadian from St. Zotique) up to Whitby, in March, 1862, to oversee the rafting of timber which was to be towed to Garden Island. There are many passages in the letters of the 1860's and 1870's, such as—"The *Highlander* and *Hercules* arrived at Garden Island with Port Hope tows yesterday, all safe," or ". . . the *Hercules* passed here [Garden Island] today with another raft, all safe. . . ." In 1862 several rafts consigned to John Flanagan of Quebec were towed from Toronto, the last one "had very rough weather . . . fortunate in getting through without accident."

They did not all escape. A Toronto raft, belonging to Cook Brothers, in tow of the *Highlander*, was damaged in a summer gale, June 26th-27th, 1865; the steamer took the raft into shelter behind Presqu'île. A letter of 1861 tells of a raft—it was not in tow of an Island steamer—coming in off the lake "in a badly shattered state . . . and allowed to lie in our harbour" (that is, behind Garden Island), where Calvin and Breck's men helped to repair it. It had been badly rafted in the first place, and there was further trouble with it on the trip down the river.

The 1860's, especially 1865, were the big years of this

lake towing of rafts—from Toronto to Prescott, Port Dalhousie to Prescott, Toronto to Garden Island, Hamilton to Prescott, Oakville to Garden Island. Throughout all this work, the firm's attitude to it remained unchanged. Writing to their friends D. C. Thomson and Company of Quebec in 1862, Calvin and Breck warned them that "Lake rafting is a very risky business" and that they would be prudent to avoid "Lake Ontario rafting and towing." Nevertheless, Thomson rafts were towed that year and in following years.

One of the latest offers for lake raft towing was made in 1879 to Richard Nagle, Ottawa. Calvin and Breck asked \$500 to tow six drams from Port Hope to Garden Island, and \$1 per foot of length per dram from the Island to Quebec; the owners of the timber to take all risks except that Calvin and Breck would refloat any drams that might ground in the rapids. Nagle declined the offer.

The less dangerous towing from the Bay of Quinté went on much longer than the raft towing on the Lake, in fact it continued in a small way until the early 1900's. The rates charged from Trenton to Prescott, in the busy 1860's, were from \$40 per dram for rafts of ten to twenty drams, down to \$24 per dram for big rafts of thirty drams or more. From Prescott to Montreal, in those days, most rafts depended on the current and on their sails.

6. WOOD FUEL

Wood fuel may seem a prosaic subject, but for fifty years or more it was a large and very important item of cost in the Island firm's business. Again, thinking of the enormous quantities which were burned up, it becomes plain that the use of wood for fuel was one of the most rapid and efficient causes of forest depletion in the St. Lawrence valley.

The cost of hardwood for fuel, that is to say of "cordwood," advanced more rapidly than the selling price of timber at Quebec. In the thirty years 1843-1873, while wood fuel was rising from 8/- Cy. (\$1.60) per cord to \$4 and more, oak timber in Quebec rose only from about 1/2Cy. (24 cents) per cubic foot to 50 to 51 cents.

The sources of wood fuel, for many years, were of course close at hand. Indeed it might be said that coal superseded wood as soon as these sources became even slightly remote, for such a cheap, bulky commodity as cordwood could not pay any serious carrying charges. Hundreds upon hundreds of cords were hauled over the ice to Garden Island in the winter months, and piled in every available spot; wood came also by scow and barge all through the season of navigation, in an unending flow, to ensure that the firm's steamers might always be able to "wood up" at their home wharves. Fuel for use on the Island itself, whether for commercial or domestic purposes, was a minor consideration—wastage from the shipyard and the rafting supplied most of these lesser needs.

The wood landed on the Island, however, was but a part of the needed supply. All that a steamer could find room for—and it was said that the *John A.*, leaving Garden Island with a raft, "looked like a floating wood-pile"—sufficed for only a relatively short distance. Wood had to be available at all the regular stopping places along the river; not only at Champlain or Three Rivers for the tugs which towed the rafts from Montreal to Quebec but also at each end of each "station" of the Government Tug Line. (The railways, too, in these early years had to have wood available at frequent intervals along their lines—the passengers sometimes helped to "wood up" the tender.)

In the 1860's and 1870's the firm bought annually, for all purposes, about 25,000 cords. Almost all of it was

hardwood—chiefly beech, birch and maple—but some “soft” wood, such as tamarac, was also burned. Little of it was bought by contract. Certain favoured suppliers, especially those who served the Tug Line, were given small advances—\$500 to \$800—during the winter to enable them to buy more freely from farmers and others, but the regular answer to applicants for advances to “get out” cordwood was “our rule is to take our chances of prices during the season.” No doubt experience had shown that there was enough competition to keep the price steady. The steamer captains, too, could be counted upon to compete with one another in buying fuel to the best advantage. During the Civil War, when the United States dollar was at a heavy discount, the captains of the tugs which were towing on the international section of the river were encouraged to “wood up” at American ports, as they had opportunity.

So much for supply—payment for wood delivered at Garden Island was made in cash or by cheque in the usual way, but the method of payment along the river was more interesting. The captains carried books of “Wood Tickets,” bound with “stubs” like cheque-books, as were the Towage Tickets of the Tug Line. The “ticket” was simply a receipt, signed by the captain, for so many cords of hard or soft wood at such a price. A letter of 1862 sets out, for a casual seller who did not “know the ropes,” the customary way of paying the Wood Tickets. They were sent by their holders to the Island (really to Kingston) “by express, to be handed to us on payment of the money . . . this saves the trouble of writing about them.” Wood Tickets were also paid upon presentation at the firm’s office in Quebec, but this was unusual. At times these tickets were endorsed, by their holders, to the order of someone else—in fact, in certain stretches along the river,

they circulated like paper money and were not presented for payment till they were weeks, or even months, old. All this routine is an illustration of how business was done before the days of ubiquitous branch Banks and a sufficient supply of currency.

Now this wood fuel, though cheap enough by the cord, was very costly in the aggregate, because the boilers and engines of some of these old-time side-wheelers were uneconomical, not to say wasteful, of fuel. A statement of earnings and wood consumption shows that Calvin and Breck's eight river steamers, in a typical Tug Line year (1871) burned about 23,600 cords, costing more than \$56,000, as against gross earnings of about \$138,000. That is, fuel cost was nearly 41 per cent. of the total earnings. The worst offender was the *William*, with a ratio of fuel cost to earnings of 56 per cent.; it was said of her that when she was taking a heavy tow up the swift current at "The Churches,"⁹ five miles below Morrisburg, the charred dollars could be seen coming out of her funnels. But even the more economical of them, the *Highlander*, for example, showed 25 per cent.

For comparison with these figures, an efficient modern steamer ought not to show a higher ratio than 15 per cent. Another comparison is this: the wood bills for the *William*, for one season in the 1870's, were equal to the coal bills for two lake steamers, three river steamers, and all other purposes of the firm for a whole season of thirty years later.

Many stories were told of the tricks of the expert piler of cordwood. A crooked piece could be so placed as to occupy several times its true size. The outer face of a wood-pile might look solid enough, but at the back . . . "every few feet there'd be a space where a boy could curl up and go to sleep," or "y' could 'a throwed a cat through

⁹The swiftest uncanalized point in the river.

some of them piles o' wood," the old-timers alleged of one special sinner's work. At Garden Island, close and careful piling was the rule, much to the disappointment of a few of those who brought in the wood, winter and summer.

"Look out below!" was the cry as the wheel-barrow was tipped into the steamer's forehatch—when the small forehold was filled, the wood was piled on deck, fore and aft, and in the alleyways each side of boiler and engine. To raise steam, the common practice (against strict orders) was to drench smaller bits of wood with coal-oil, to get a quick start. The wood was "fired" at its full length of four feet, and when the steamer was towing "all out," up the currents, it disappeared with incredible speed. The fireman had no clinkers to deal with; the ashes were part of his pay—he sold them to the potash makers. (Wood ashes, in barrels, were exported to Britain in the early years.) It may be that the consumption of fuel would have been lower if the fireman had been better paid, and had had to account for his ashes at some roughly estimated amount per cord burned.

CHAPTER VI

AT THE ISLAND

1. THE VILLAGE

IN THE SUMMER of 1878 the American passenger steamer *Admiral* ran aground near Alexandria Bay, N.Y.; her captain and purser went up to Garden Island for help in refloating her. The purser afterwards wrote an account of his visit.

He calls the Island “. . . the most fascinating spot I ever visited. It had an individuality . . . seemed saturated in traditions and memories . . . swarthy men, speaking strange tongues, . . . unusual looking steamers lay at the wharves.” He speaks of “the quaint village street” and of the litter of ancient engines, chain, anchors, small boats, masts and spars. He found “. . . everything testifying to many continuous years of hard work, rough experience, wrecks handled, vast quantities of timber cut, shipped and rafted down the river . . . by a man of rugged character and strong self-reliance.” He speaks of “the simple well-ordered village where employers and workmen dwelt together and in the government of which they co-operated in harmony.”

It is curious, in a country of such vast spaces, that such a tiny spot as "the foot" of Garden Island should have been used so intensively. If the same work had grown up on some mainland area, it must surely have spread much more widely. The whole Island contains only sixty-five acres; all the work (except the rafting and other activities on the water) was crowded into less than a quarter of it, and the houses into a second quarter.

Around "the foot," for hundreds of yards, the whole of the shore-line was hidden under wooden wharves. From "the front wharf" (where the ferry-boat landed) out to the east and then up behind the Island, was a series of piers—there were perhaps thirty of them in all. These were connected (from spring until the ice came) by booms built of square pine timber—two, three or four sticks in width—and they enclosed some fifty acres of quiet, shallow water where the rafting was done. In the winter, a part of this area was crowded with vessels and steamers, either anchored or made fast to the piers, and frozen in awaiting the spring break-up. Outside this rafting and wintering space was "the graveyard," where worn-out wooden vessels rested on the bottom, in various stages of dissolution.

Approaching "the foot" on a summer day, fifty or sixty years ago, timber vessels would be seen moored to the first main pier—the Liverpool Holdfast, it was called—while their timber cargoes were unloaded by the steam winches of the capstan-house. Beyond them would be others discharging at "the far capstan." At the front wharf there might be one or two of the river side-wheelers; to go ashore from the ferry-boat you walked across their decks among the wheel-barrows of the "wooding up" gangs.

Landing on the island—you stepped off the wharf on to the solid rock—you had on your right a double dwelling house (afterwards the store and Post Office) and, beyond

that, to the west, the old sail loft with the firm's private lighthouse atop of it. Straight ahead was "the shanty," where the Indians lived, to the left were the bake house, the boiler shop, the great eighty-foot sheer legs, the old store. At the corner of the shanty the road turned right (south-west); on your left were a dwelling house, the joiner shop, machine shop, and jig-saw platform. To your right, just behind the shanty, was the blacksmith shop, and then the open shipyard—open, that is, apart from the vessel on the stocks, probably only being framed, in the summer. Across the shipyard were the later sail loft (which still stands) and the ship carpenters' work-shed; over the latter was the "mould loft" where the "lines" of each new vessel were worked out on the floor to full size from the scale model. Behind the machine shop, down at the beach level, were the withe-machine and the steam power plant. Then came the sawmill, facing the shipyard.

Beyond the mill, on the road, stood the firm's office, a little white box-like frame structure. In very recent years it has become a summer cottage, with a verandah on two of its sides. How mystified would be the ghosts of raft foremen, schooner captains, steamer engineers, revisiting it today—looking for "the Governor" or "the Boss."

For many years the office was a single room, broken at the middle of one side by a small brick vault, which, aided by a short counter and a standing desk, divided it into two portions. A second storey, with a second vault (and an attic for storage) were added in the middle years of the business; the inner room, upstairs, was Breck's sanctum—its walls were covered with maps of the firm's oak and pine lands in Ohio and Michigan. The front part, upstairs, was the timber measurer's domain. The desks and filing cabinets were of the very simplest type. Originally the office was heated by a wood-burning box-stove and lighted

with candles—afterwards replaced by a “self feeder” for anthracite, and by oil lamps. It is difficult to conceive how so much business could have been done, for so long a time, in such an apparently inadequate building—today’s “executives” would demand five or six times as much floor area and furniture. The only material thing in which the place excelled was the beautiful paper of the books of account—handmade by Whatman or by Cowan. But perhaps the close quarters of the old office, with the timber measurer and his boys droning out size and contents of each piece, and with the Custom House officer working at his Jerque Book, were a natural part of the general congestion of activity at the foot of the Island.

Beyond the office, on the other side of the road, were the owners’ houses. Breck, and from 1881 “the Boss,” lived in the first, “the Governor” in the second; behind it he had a big kitchen garden and some fruit trees. South-east of the garden, across the width of the Island and on the shore, were “the skids,” the area where the cribs¹ were built and shoved off into the water. Beyond garden and orchard, up the road, were the barns—four of them, all joined to one another; considerable space was needed for horses and feed, in the days before steam.

Past the barns were the schoolhouse and the ice-house; at the top of the road were the Mechanics Institute (later called Public Library) and the Island’s only brick house, built by Angus Cameron, the first owner. It was occupied by a farmer who rented the westerly thirty or forty acres from the firm.

All along both sides of the road, from opposite the barns on one side, and from just above them (behind the schoolhouse) on the other side, stood the workmen’s little houses. There were also one or two “side streets” of cottages, off

¹See pp. 65-66.

the main road. At intervals, on the westerly side, there were gaps between the houses, to give access to the water. Winter and summer it had to be carried to every house.

The houses were all frame, built in pairs. Their sills rested upon light stone foundation walls in some cases, in others on cedar posts. They had no cellars. From the road they looked very much alike, but at the rear they thrust out a variety of lean-to additions. Indoors, the kitchen was the chief room; and its wood-burning cook-stove was the chief source of heat, though all the houses had a second stove. Wood fires die out quickly; when the housewife had been away for some time she was always free to "carry fire"—hardwood coals—from her neighbour's stove. Most of the chimneys were brick, but some houses boasted instead an old rivetted flue from a discarded low-pressure boiler. Some of the stairs up to the little second storey bedrooms, in these houses, were incredibly narrow and steep.

Once or twice, in the middle years, fire destroyed a number of these little houses. "The Governor" built shields, or fire-stops, which could be run in between the houses to keep a fire from spreading. They were of disused iron plates rivetted together and mounted on low wheels.

At the foot of the Island, every inch of ground not used as shipyard, or for roads, houses, and work-buildings, was piled with cordwood and with rafting materials—withes, toggles, floats and traverses. There would be larger quantities in the spring, after the winter's hauling, than in midsummer or autumn.

There was some little community life in the village. The Mechanics Institute was the men's club-room, where an excellent library was available to everyone. The Masonic order had a lodge on the Island. Concerts were

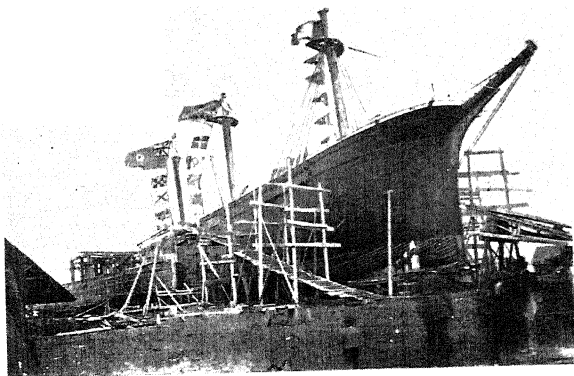
held in the schoolhouse. "Doors open at 7 p.m. . . . admission free," says a programme of April 14th, 1882, which runs to twenty-four numbers, seven of them were songs by "children."

On one occasion their predecessors had sung for Royalty—in August, 1860, when the Prince of Wales (Edward the Seventh) arrived in Kingston harbour from down the river. He did not land; his steamer, the *Kingston*, anchored, and the Island side-wheeler *Hercules* went alongside. Several hundred children on board—some from the Island, including "the Boss," aged nine—"for half an hour sang songs of welcome which they had practised," says a letter of Breck's to George van Camp at Quebec. He adds that the *Hercules* was "the only boat to give him a welcome."

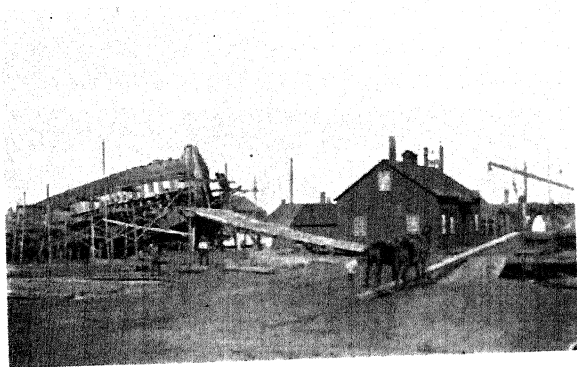
Service was held every Sunday evening in the schoolhouse; usually it was conducted by the minister from Wolfe Island, Anglican or Presbyterian, but also, occasionally, by men from Kingston. One of the latter, a Methodist, was in trouble with his superiors in that Church because on a fine winter Sunday in 1878 he had so far forgotten his high calling as to skate across to the Island.

All in all, the Island village was a quiet and contented community. Its specialized activities, like its situation, cut it off somewhat from the life of Kingston and the surrounding country, yet the summer took many of the men far up the Lakes and down the river. They did not stagnate. The only periods of real isolation were in the early winter when the new ice was unsafe, and in spring when the heavy ice was breaking up. During these few days, necessary trips to Kingston or Wolfe Island were made in "the iceboat," a big heavy punt on runners.² There was a rule on the Island, long ago, that the expected

²See Glover and Calvin, *A Corner of Empire*, Cambridge, 1937, pp. 116-120.



BARQUE *Garden Island*, READY FOR LAUNCHING, 1877
(At left, steamer *Raftsman*, rebuilding)



RIVER BARGE *Hiawatha* UNDER CONSTRUCTION, 1895
(On same spot as the *Garden Island*, above)

arrival of an infant within these doubtful times must be reported to the office, so that the iceboat crew might be warned to be in readiness to go for the doctor.

2. SHIPBUILDING

Why was shipbuilding begun as soon as Calvin, Cook and Counter took possession of their first small part of Garden Island in 1836, and eight years before "the Governor" came to live on the Island? There is no record that he had been owner, or part-owner, of any vessel while he was rafting timber from Clayton, N.Y., to Quebec. Timber-making and rafting continued to be the main business of the firm during "the Governor's" life—why shipbuilding, then, from the outset, at the Island?

There were no doubt several reasons. One was that timber could not be loaded through the deck-hatches of a schooner, the long sticks must enter the hold through "ports" in the stern—over them were deck-ports, through the bulwarks of the transom (square) stern, to take on the deckload. The Island's need, that is to say, was for a special type; there was plenty of material continually available, in the timber arriving from up the lake—why not build their own vessels to carry their own timber? Another reason was inherent in the move up-river from Clayton; the new place of business was close to Kingston, then an important port, full of the shipping of the period—why not try to share in the general carrying trade? The building of schooners and barges for the Island's own use led easily to building for other owners, and to the building of steamers.

Many of the varied craft launched from the shipyard at Garden Island, or owned by the firm, have already been

shown at their different tasks—loading timber on lake shore or in port, towing on lake or river, handling the unwieldy rafts in bad weather. Inevitably this has meant some description of the development of different types, and something about boilers and engines.³ But, however close the relation of the one to the other, the operation of vessels in commission is wholly distinct from shipbuilding.

Wooden shipbuilding has disappeared from the Great Lakes; the art is still practised in the Maritime Provinces, but not on a great scale. At sea, wooden ships vanished sooner than sailing-ships—Conrad's *Narcissus* and Masefield's *Wanderer* were built of steel. On the Lakes wood was cheap, and was not superseded by steel until steam had long been established. The decline of the art was gradual, but easily seen by comparing a survivor from the Garden Island lake vessels of the 1870's or 1880's with one of the last from the yard, thirty years later. There were differences in model—less refinement of line and detail—and differences in finish dictated by higher wages and poorer wood. Nevertheless the Island's vessels, to the end, were in the true tradition, and the latest of them were among the very last wooden vessels built on the Lakes. During the first Great War, the Shipping Board ordered some wooden ships. A visit to one of them, under construction in 1918, was a sad experience for one who had seen "the real thing."

Among the earliest vessels built at Garden Island were the schooner *Queen Victoria*, the brig *William Penn*, the schooner *Hannah Couter*, the brig *Lafayette Cook* and the little steamer *Raftsmen*—all before 1841. Early river-barges were the *Caroline*, the *Eclipse* and the *Glasgow*. They must have been tiny craft, for a letter from John H. Greer and Company, of Kingston, June 17th, 1847, orders

³See pp. 118-119.

one from Calvin, Cook and Company, thus: "Please build us a barge same as *Glasgow* to be finished by Sept. 10th or at latest Sept. 15th. Price one hundred and fifty pounds, to be paid as the work progresses." Three months to build—the barge can hardly have been more than a big "Durham boat."

In 1852 the barque *London* came out; she was 134' by 24' by 10' 8", measuring 340 tons, and was thought by the old-timers of that day to be rather big for the Lakes. "We launched our new vessel, the *Plymouth*, June 1st, just as Mr. Calvin got ashore here from Quebec—she is a beauty," says a letter of 1854. A later letter—the first part of it was blurred in the copying—gives some details of the *Plymouth*: "... gunwale 4" thick, butt bolted; spike throughout 10" by 5/8", round, and made by ourselves—ceiling,⁴ 2½" plank, except five bilge strakes 5" to 6"—keelson cedar, great pains taken to obtain it—best of oak used throughout—all frame-heads oil soaked before covering."

Despite this careful work on the *Plymouth*, the difference between river barges and lake schooners, as to their hulls at any rate, seems to have been slight. In January, 1851, "the Governor" was trying to trade, for some other craft, a lake schooner which had been "built out of one of our largest class River Barges, she cost us £1,250 Cy., she carries 1,500 barrels on the Lake and 2,000 on the River."

As between steamer and barge, however, there was a real difference. On December 3rd, 1852, Calvin and Cook offered to build for Josiah Blood a steamer hull "109' Keel, 23' Beam, and 8' hold . . . in a good and workmanlike manner," by May 1st, 1853, at £6 Cy. per ton "carpenter's measure." Or they would build him a barge hull of the same dimensions for £5 Cy. per ton; the steamer hull, that is to say, cost 20 per cent. more than the barge.

⁴The inner planking of a wooden vessel.

Repair of the Island firm's vessels was always a part of the shipyard work, and in the earlier years repairs were made for other owners also. For instance, February 20th, 1845, a letter from James Pierson guarantees payment by his son, Captain Joseph Pierson, for lengthening, repairing and fitting out his schooner, the *General Brock*. In May, 1848, the firm was supplying a new centreboard, and "fixing the floor for the stone" in a little vessel—probably a "stone-hooker." In November, 1852, Calvin and Cook, declining a repair job, said that it was "almost impossible to get carpenters . . . wages are about double what they were last year." The schooner *Omar Pasha*, a regular trader to the Island with timber, in November, 1859, paid \$90 for a new mast and about \$50 for "setting it up." In 1850 the schooner *Dolphin* had some small repairs done, \$21.50.

It was the firm's policy, for very many years, to "lay down" a vessel every year. This meant two things; first that the shipyard was always active, and ready to do the firm's own building and repairs; but second, it meant that buyers had to be found for many of the vessels built. A number of those built for sale were large river barges for the Kingston and Montreal Forwarding Company. Some were given Indian names—*Dakotah*, *Cherokee*, *Hiawatha*; others were named for birds—*Thrush*, *Condor*, *Lapwing*. There may have been twelve or fifteen of them in all; they differed little from the lake schooners in size. Not needing timber-ports, however, they were built with the conventional round stern, and with an open deck-rail which was lower than the closed bulwarks of the lake craft. The earliest of them carried about 25,000 bushels at 9 feet draft, those of later years rather more.

Only one vessel for salt water was built in the shipyard—

the barque *Garden Island*⁵ launched in the spring of 1877 after being nearly two years "on the stocks." She was "all oak frame and planking" and was built "under the inspection of Bureau Veritas to class AI for eleven years." Without question, the *Garden Island* was the finest product of the shipyard in all its seventy-five years of work. She cost far too much, however, to compete on even terms with the more cheaply built Quebec ships of her day. Yet the Island firm kept her busy for seven years before selling her to Norwegians—carrying her owners' timber from Quebec to Britain was her summer work. The records of the Quebec office are full of correspondence about the *Garden Island's* cargoes and voyages, especially letters to and from her captain, William Zealand, and the firm's British agents, Edmiston and Mitchells of Glasgow.

In the early years of the yard, its ship-carpentry was all done by hand. The saw-pit still existed in the 1890's, and was used occasionally, though the steam sawmill with its gang-saws had been in use for many years. Other mechanical helps were the jig-saw, and the band-saw that followed it, which cut various bevells and curves. Still later came compressed air for boring holes and for driving bolt or spike into them. Beside the sawmill was the steam-box where the heavy planks were made pliable enough to be forced into the necessary curves, especially at bow and stern.

It is not a little sad to recall the vanished handicraft of wooden shipbuilding—the skilled use of edged tools, the steady eye, the patient fitting, that went to the shaping and setting in place of the great pieces of oak.

The Island yard did not turn out all the small boats

⁵See note, p. 34.

which were needed for the firm's lake and river vessels. Many of them were bought in Quebec and carried to Garden Island by the steamers returning after landing the rafts. In the busy years of shipbuilding at Quebec there was a thriving business in boat-building, for new ships, for replacements, and for general use—between ship and shore, for example. (Long ago, when warships of the old North Atlantic squadron visited Quebec each autumn, the boatmen were busy ferrying civilian visitors to and from them in these locally built craft.) One kind of boat used by the Island firm, however, was always built in its own yard—the heavy, stout craft which went down the river with the rafts. Only when running the rapids was “*la barge*” hauled out on the “cabin dram.” These boats could carry twelve or fifteen men.

The sail loft⁶ was not so important to the shipyard after the coming of the lake steamers, and the tall-sparred schooners had become tow-barges—in the days of sail it was all-important. The first sailmaker and rigger was Joseph Dix, a Welshman who came to Garden Island in 1839 to work for “the Governor.” Dix's sons followed him in his skilled and interesting trade; the youngest was still with the Island firm down to the end, in 1914, and was in charge of Garden Island itself for many years afterwards.

Besides their work directly for the shipbuilding, the Dix men were the Island's experts in arranging the gear for all heavy lifting or pulling—boilers and engines into or out of steamers, and hauling out vessels for repairs.

As long ago as 1882, nearly thirty years before the last wooden hull was launched from the Island yard, H. A. Calvin was thinking of iron vessels—the day of steel ships had not yet come. He wrote to Edmiston and Mitchells,

⁶See *Queen's Quarterly*, Spring, 1942, pp. 53-58.

giving them a description of the usual style of lake steam-barge, and asking them to find out whether such a craft, of about 550 tons, could be built of iron on the Clyde and come out to the St. Lawrence under her own power. What would be the cost per ton? Nothing came of it, perhaps tradition was too strong. Later developments showed that "the Boss" was right; the days of the wooden vessel were numbered, on the Lakes, even in the early 1880's.

3. WRECKING

Wrecking and salvage, as one of the Island firm's activities, grew naturally out of shipbuilding, freighting and towing. Any vessel may meet with accident—why not be prepared to succour their own vessels when need arose, and those of other owners as occasion offered?

All through the letter-books there are copies of bills for wrecking. They are addressed in the customary way to "Owners and Underwriters," too often without giving the situation of the accident. When the account was disputed, or when explanations were asked, there are letters which disclose where the work was done. Enough can be traced, however, to show that the Island firm had a big share, for a long period of time, in the marine salvage work done on Lake Ontario and the St. Lawrence.

In the busy middle years, 1850 to 1880, there are many offers to take on a small wrecking job for a "lump sum," up to perhaps \$1,500, on the "no-cure-no-pay" basis. The firm did a much greater number of jobs in this period than in the next thirty years, but they were of a smaller average size. The little schooners, especially, seem to have got into difficulty very often.

There is an interesting series of letters about the schooner *Globe*, which went ashore in a snowstorm, mid-

December, 1851. (Lake sailors took great risks, a century ago, in their little sailing vessels—mid-December finds almost all the great steamers of today snug in winter quarters.) The *Globe* had grounded in the Bateau Channel between Wolfe and Simcoe Islands, and within sight of Garden Island; on December 27th “the Governor,” after visiting the vessel, wrote to her owner, James Cotton. About 1,000 barrels of her cargo had been got ashore, “I have secured the flour as well as I could” (he wrote), it was safe from wet but not from fire. The vessel is leaking, she ought to be hauled out and caulked—“This we can do for you if you think proper to give us orders.” Evidently the orders came, for in January, 1852, “the Governor” had examined the vessel and suggested further work which needed to be done. In April, Calvin and Cook rendered Cotton an account for the repairs, £119 9s. 9d., and said they had drawn upon him for that amount, at four months. No charge was made for storing her cargo in shelter at the Island. In May, the firm was finding cargoes for the *Globe*, on Cotton’s behalf.

Not every job worked out so satisfactorily. There was one in 1857 for which, apparently, the Island firm received but £440 in settlement of an account for £1,664 against the propeller *J. W. Brooks*, and that only out of the sale of her cargo.

A serious wrecking effort which failed was the attempt to refloat the side-wheeler *Grecian*, ashore in the Split Rock rapids in the summer of 1868. The account against the steamer, \$2,007.50, was largely for salvage of cargo. Thirty years later the diminished wreck of the *Grecian*, obstructing the swift heavy current like a great submerged rock, still created its own set of waves in the Split Rock—they were not pointed out to steamer passengers.

In 1872 Calvin and Breck had two considerable wrecking

assignments in the river below Montreal. In June they raised H. and A. Allan's steamer *France*, sunk five miles below Montreal, and in September released the steamer *Vicksburg*, stranded below Quebec. The ownership of the *Vicksburg* has not been traced, but the name would indicate American registry. The Island side-wheeler *Wellington* took men and pumps to both; the bills for wrecking services, as copied into the letter-book, were about the same—\$10,944 and \$10,516 respectively.

A long "catalogue of the ships" might easily be made from the record of the Island firm's wrecking work. The propeller *Lake Michigan* was pulled off the rocks above the Galops rapids in August, 1879; the side-wheel passenger steamer *Corsican*, sunk in South Bay, was raised and brought into Kingston in November, 1875; the *Corsican* was also released from Duck Island in September, 1892; the side-wheeler *Magnet*, aground in one of the rapids, was released in June, 1894—apparently this was a rather difficult bit of work. There were numerous rescues of schooners aground at the entrances to Kingston harbour. And so on, to the end of the chapter.

The wrecking pumps which "the Governor" invented were worked by the "walking beam" of a side-wheeler's engine—"a moderate sized engine will carry six of them," he says in a letter to the Secretary of the Navy at Washington.⁷ The pumps were 3' square, built of wood, and lined with iron plates for the 7 feet where the plunger travelled. In later years they were superseded, first by rotary steam pumps and these in turn by the modern centrifugal type.

Another wrecking appliance of "the Governor's" was a set of strong tightly-caulked oak boxes, about 20' by 10' by 6', which were allowed to fill alongside a sunken vessel,

⁷See p. 15.

then fastened to her hull and pumped out, to raise her from the bottom. The theory was good, but the boxes did not work well in practice, and were discarded.

Yet how interesting it might be to modern salvage engineers, if some of this old-time amateur apparatus could be brought back and seen at its work.

4. AMATEUR ENGINEERING

"We have a horse power withe machine, just started, that twists withes very fast . . . it saves the labour of as many as twelve men, in my opinion," says a letter of August 26th, 1854, to George van Camp of the Quebec office. Up to this time, the withes had been softened for use by manpower, by rolling them up on drums between pairs of six-foot wheels such as were used for steering the river-steamers. No drawings or description of the "horse power withe machine" have survived, but it remained in use for some twenty-five years, when it gave way to a steam-driven machine invented by one of the Island's amateur engineers. This machine—or machines, for from the 1880's there was a pair of them—ceased work only when the rafting came to an end in 1914.

It would be difficult to describe this steam withe-machine in any detail, elaborate drawings would be needed. Suffice it to say that the machine did three things simultaneously—it gripped the withe at the butt, twisted it (to break open the fibre) and wound it around a revolving drum which at the same time moved towards the revolving jaws which held the butt. When the steam was cut off, the withe, as it unrolled, whipped violently back in an attempt to regain its original straight line. Many a visitor, mechanically inclined, has watched this unique machine at its task—fascinated.

The picket-machine was another special contrivance of the later years; it must have saved an enormous amount of hand labour, for thousands of pickets⁸ were used each season in the rafting. Each was made from a 30-inch length of hardwood sapling, about two inches in diameter. This was chopped to a square at one end, which was then set in a rapidly revolving holder. A knife in a frame (something like a giant pencil-sharpener, except that it did not cut to a point) was brought down over the whirling stick, paring it smoothly to about an inch and a half diameter almost to the butt, where a lump was left between the round stem and the square end—as it were the head of a great wooden bolt.

The holes into which these pickets were driven (in the floats and traverses of the timber-cribs) were made by another local device, the steam “boring-machine.” Its belt-driven auger was at the end of a long, jointed, moveable arm—a kind of crude forerunner of the modern portable drill driven by compressed air or electricity.

Unloading timber at the Island was slow work in the early years. A letter of Calvin and Cook, October 30th, 1851, tells a timber-man that two more capstans would be erected during the winter, making seven in all, with two horses on each, and all working eleven hours a day. They hope that “no vessel will be under the necessity of lying here more than one day.” Like the horse-driven withe-machine, these horse-capstans were used until the 1870’s, when they were replaced by steam winches—but the buildings containing the steam gear were called “capstan houses” down to the last years of the business. It is unlikely that these horse-capstans and steam winches differed much from those used at other places where timber was unloaded—at Clayton, N.Y., for example, but

⁸See p. 66.

one application of the steam gear was perhaps unique. In the 1890's the firm built three or four flat floating boxes, about thirty or forty feet square by six feet deep and installed on each a small boiler and a pair of winches—the whole affair was called, oddly enough, a “pontoon.” These mobile machines were used at times for unloading vessels, but their chief use was in loading the cross-tier and the top-tier of drams of pine timber.⁹

The half-mile frontage of wharves, and the twenty-odd piers, at the foot of Garden Island and behind it to the south-east, were not remarkable as engineering work. There has been almost nothing left of them, for many years past. They were all of wood, usually of the “floats” used for the rafting cribs; they were built in the winter and sunk through the ice, tier by tier, with heavy blocks of limestone. Their unseasoned wood, above the water, suffered quickly from the weather, they needed much repair.

“The Governor” tried to stop erosion of the south-west shore of the Island by building several hundred feet of his usual stone-loaded open pier-work, just outside the beach line. It was a failure, of course, for the wave motion passed through it—the erosion was stopped in later years by revetting the banks with small boulders.

It has already been said that none of these wooden piers could have been at all permanent,¹⁰ and that long life was not expected of them. The single exception to this rule was the outside pier of the long breakwater which sheltered the main deep-water wharves from the westerly gales and from the ice-shoves in the spring. This pier was very solidly built of square timber carefully fitted together. “The Governor” himself probed the limestone bottom—the

⁹See p. 67.

¹⁰See p. 14.

water is some thirty feet deep—and designed the lower tiers of timber-work to fit its irregularities. Except for its upper timbers, torn away by the ice in recent years, this pier still stands, and the water around it is still a haunt of black bass.

One very small bit of permanent engineering work, at Garden Island, has been the source of many questions in recent years. At various strategic points—in what was once the shipyard, and near the main wharves, for instance—there are to be seen heavy wrought iron rings, ten or twelve inches in diameter, held by stout eye-bolts sunk four or five feet into the solid limestone, and set in molten lead—"lead in the rock forever," as Job desired. These were used for anchoring the horse-capstans to "haul out" a vessel for repair, for holding the guy-ropes of the hoisting-mast beside a vessel under construction, and for other similar need of a good hold, or "holt" as the workmen would have said.

Boilers, engines and winches, for lake and river steamers and for use on the Island, make up the bulk of the engineering work in the story of the business. Its beginnings are difficult to trace, but the first of it was probably repair and maintenance work for the firm's earliest steamers.

However, an order given by Calvin and Cook in August, 1851, to Frothingham and Workman of Montreal, would seem to show that the Boiler Shop had already become a busy place. Eight tons of plates for boiler "shells," two tons for flanging, and several hundredweight of rivet iron, were not being bought for small repair work.

There is no evidence that the firm ever built a complete engine for a side-wheel steamer, but it is plain from the records that something more than just repair was often

done. (It should be said here that there was no foundry on the Island; all castings were bought, chiefly from Davidson and Doran, afterwards The Kingston Foundry.) More than once, the boiler and engine of a side-wheeler were removed, put into order, and installed in a new Island-built hull. Sometimes a new boiler was built, and only the engine re-used. These side-wheel engines were simple machines. They were driven by low steam-pressure, their motion was slow, and their cumbrous parts were very loosely knit, as compared with modern engines. The engineer of an Island side-wheeler, in the 1860's, was able to bring the steamer home, when the crankpin of the engine broke, by fitting a temporary one made from a piece of hardwood.

When steam succeeded sail on the Lakes there was an inevitable increase in the bulk of work done in both the Island's Boiler and Machine Shops. Not only so, but the quality of the work itself ceased to be "amateur" and became equal to the best that was being done elsewhere. Many small boilers and steam-winchies were built for handling timber at the Island and on the lake vessels. In 1894, a fore-and-aft compound engine of some 500 H.P. was built for the firm's new screw-wheel river tug, the *Reginald*—later sold to the Imperial Oil Company and by them to the Waldie lumber firm. A few years later a much larger engine, triple expansion, was built for the lake steamer *India*, launched at Garden Island in 1899. These and other engines were completely successful in operation, but the boilers which drove them were ordered elsewhere—the Island firm, in the last years, built more engines than boilers.

For a few years Garden Island could boast of its own railway line; from a point at "the foot" it ran for a few

hundred yards up the island among the piles of rafting material. The old schooner *Denmark* was fitted with tracks and ferried over cars of withes, traverses and floats from the railway sidings in Kingston. The saving made in handling the materials was much less than had been expected, and this "car-ferry" idea was given up. A little horse-drawn flat-car continued to use the tracks for moving heavy gear about—horses had been used also to move the full-size flat-cars.

CHAPTER VII

THE LAST YEARS

1. RETROSPECT

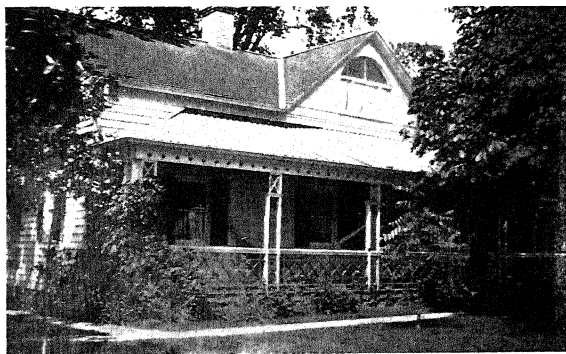
THE GRADUAL changes which occurred in the Island business have necessarily been touched upon in turn. It would have been impossible to deal intelligently with the early and middle periods without looking forward, at times, to the later years. Two of the most obvious causes of the differences between the business of the 1860's and early 1870's and that of its last thirty years were the losses following the "break" of 1873, and the death of the founder in 1884.

There was however a far deeper cause than these—the depletion of the forest. If there had been no "1873," and if the whole of the founder's estate had remained in it, the business must still have changed greatly. It had been based upon the seemingly unlimited virgin forest of great trees, and must inevitably have shrunk with the shrinkage of the forest, regardless of any other cause.

And there is this, also. Timber-making was the first form of forest exploitation, but, while the Island firm was still doing a big business in timber, the second form—



BLACKSMITH, BOILER AND MACHINE SHOPS; OFFICE



"THE BIG ECUSE," 1895

sawing—had already begun. The old timber names which survive, in the Ottawa Valley for instance, are now lumber names. Their cutting in the bush is still carried on somewhat as it was in the timber days, but the bush product is logs for the sawmills on the Ottawa, not timber for Quebec. With the filling up of the country and the consequent activity in the building trades, more and more of the trees—especially pine—were sawn into lumber, joists and flooring, instead of being hewn into timber. Demand from the United States accentuated this tendency.

Why, then, did the Island firm not change over from hewn timber to sawn lumber? It was certainly not because the partners did not see what was happening. The basic reason was perhaps in the Island itself, where the business was rooted. The Island was an ideal rafting station, but impossible as a site for a big sawmill. Choice trees, cut into valuable timber, could pay for freighting by vessels to the Island; when rafted, they were floated on easily to Quebec. Logs for a sawmill could not pay for such handling—they must float direct to the mill. Again, there was not room enough on the Island for piling lumber in any great quantity—above all there was no possibility whatever of shipping lumber out by rail.

Two other points: first, wood for shipbuilding was being replaced by steel, which meant that the end of the Island's shipyard was in sight; second, water carriage had to meet the ever-increasing competition of the railways.

Indeed the change of the form of the firm from a partnership to a limited liability company, in 1886, was an expression of a general trend. The "one man" undertaking—for that is what the Island business was—had had its day.

So much for the causes of change. What were the actual conditions, in the last twenty-five years of activity at

Garden Island? Timber-making, for so long a large part of the business, had ceased. It is true that to the end a little pine was bought for floating oak in the rafts, and that it was sold at Quebec, but this was purely incidental to the rafting, it was not a "line of business" in itself.

Forwarding timber for other owners had become the firm's main occupation; there was only one competing firm in these years, and for the last ten or twelve of them, none at all. On the Lakes, steamers and tow-barges had taken the place of schooners; on the river, the rafting continued very much as it had always been done. As long as there was enough timber moving to Quebec to keep the Island organization busy, all was well—apparently. In the 1890's, the firm at times had more timber to forward than its own vessels could handle, and others had to be chartered to help to bring it to Garden Island. There were some busy seasons of rafting, even as late as 1906. In that year eighteen rafts, containing almost a hundred drams, were sent down to Quebec. With two cargoes which were sent through and unloaded there, the total delivery of timber by the Island firm to Quebec consignees was a little over 1,800,000 cubic feet.

This busy season, however, like one or two others in these last years of rafting, does not show that there was any real revival, but rather that the end was near. First, these eighteen rafts were the only ones which went to Quebec. Again, the widespread sources of this timber of 1906 show that there had been a struggle even to find it. A mixed lot of some 200,000 cubic feet had come into Toronto by rail—gleanings from the wood-lots of "old" Ontario. The oak, some 600,000 cubic feet, had come to Toledo, Ohio, from points on the Ohio River and from Kentucky¹; most of the elm still came from Wisconsin and

¹See p. 49.

farther west, and had been loaded by the Island vessels at Green Bay. Part of the waney pine was delivered by the Algoma Central Railway to Sault Ste. Marie, Ontario, and loaded there; another part came by rail into Duluth, Minnesota—this lot may have come from as far west as the Rocky Mountain slopes in the State of Idaho. A third part of the pine came to Kingston by rail from Northern Ontario; on it the firm earned only the river freight, whereas, twenty years earlier, timber from that district would have come to some point on Georgian Bay, and would have made work for the Island vessels as well as for rafting down the river.

This loss of work to them was not the only difficulty with the railways. For instance, down in Kentucky or West Virginia the oak-maker might turn over his timber to a railway, to be delivered at Quebec at a through rate per hundredweight—but it was often understood between shipper and railway that the Island firm was to take over the timber at Toledo. Bargaining with the American railway for a division of the through rate was not easy; the firm had to choose, at times, between losing the freighting from Toledo to Quebec or taking it at less than its regular rate. Moreover, the firm often had to pay the railway freight (to Toledo) before loading the timber into its vessels, and then wait for reimbursement by the owners, perhaps until the timber reached Quebec. And there was the question of damage. Timber might, and did, fall from badly loaded flat-cars—had the damage complained of in the timber-coves at Quebec been done while the timber was in the railway's charge, or not? It was very difficult to be positive, and railway claims-agents are "hard traders."

In lake freighting, new problems grew out of the lessening amount of timber to be carried. In the earlier years the schooners had carried timber all through the season—a

shorter season than in the 1900's, for the schooners were laid up for the winter more or less at the same time as the last raft left for Quebec. But in 1906, for example, about eighty per cent. of the rafting had been done by the middle of August, and the lake vessels had delivered the remaining twenty per cent. of the timber at Garden Island by the first of September. The rafting expenses could be cut off when that work was over, but the lake vessels could not lie idle for two to three months. Other work must be found for them, and none of it was so profitable as timber carrying. The Island vessels, of heavy and costly wooden construction needed for their special work, were at a disadvantage in competition with the usual bulk-carriers. In other words, these Island vessels were special craft, not typical lake vessels; they could earn a good living at their own work, but only an indifferent one in general lake freighting.

Towing on the St. Lawrence, too, which was for so long an important part of the Island business, had almost ceased in the 1900's. After the Government Tug Line was cut off, in 1874, towing still went on, for there were still plenty of river-barges to be towed—chiefly grain-laden downstream and "light" upstream. There was enough of this work to cause the firm to launch from the Island shipyard, in 1894, a fine screw tug, the *Reginald*, designed for 9' draft. Soon after this the whole scene was changed by the deepening of river and canals, from Kingston to Montreal, to 14'. After this work was completed, in 1905, steamers which could come through the then Welland Canal could go on down to Montreal, and trans-shipment of grain into river-barges at Kingston soon came to an end.

For the raft towing, and for wrecking jobs, the firm, of course, had to maintain two or three side-wheel river steamers, down to the end.

In the last fifteen years it became increasingly difficult to find men who knew the timber-carrying trade on lake and river. It was perfectly natural that this should be true; with the decline of the trade the sons of the "old-timers" had gone into other callings. Or, if they had become lake sailors, they preferred the easier life on a bulk-freighter to the hard work of the timber-carrier. There was a similar trend in the life of the great river—its men were being drawn off into other occupations. Many of the Caughnawaga Indians, for example, became structural steel erectors.

The Indians bring us back to the rafting, which, as has been said more than once, was the mainstay of the Garden Island business throughout its life. Perhaps "the Governor" unconsciously foresaw the end of it when on a September evening of the early 1880's he suddenly turned to his son, "the Boss," and said, "Hiram, we've no raft on the river tonight." It probably could not have been said, between mid-April and early November, in the preceding quarter-century.

2. POSTSCRIPT

Did the timber trade help or hinder the early development of eastern Canada?

Generally, the answer must be that it was a very great help. It provided employment for the penniless immigrant, enabling him to establish himself more quickly than he could have done by his own unaided effort. The established settler, too, and his sons, found winter employment in the woods. The timber-men were the nearest buyers for the settler's produce. Indeed the timber-men's demand outran the local supply—quantities of pork and other food-stuffs had to be imported from the United States. Taking a wider view, the trade provided purchasing power for the country at large.

Again, the trade in timber—as has been pointed out already—was a great stimulus to wooden shipbuilding along the lower Lakes. The same thing was true of the actual export from Quebec; the trade brought down both the materials for shipbuilding and the cargoes for the finished ships.

There is also the relation of the timber ships to immigration. Timber is a very bulky commodity; far more space was needed for it, eastbound, than could be filled with imports, westbound, to Quebec. (This has continued to be a shipping problem on the St. Lawrence route, for our later staple, wheat, is also bulky.) Moreover, timber was a rough cargo which did not attract high-grade shipping; it did not need to be protected, like perishable and more valuable cargo. The westbound timber fleet, then, lacking cargoes, could provide cheap passage for emigrants to Canada from the British Isles—conditions on board the ships were often appalling, but the settlers did arrive, in spite of them.

On the other hand it has been argued that the timber trade, as a whole, was detrimental to the progress of the country. It was pointed out that the timber-man cut only the best trees, that is to say the trade cleared no land for settlement. Another argument was that the settler was always close to the forest and so was tempted to try to be a timber-man as well as a farmer, which too often meant that neither occupation was efficiently followed. Some critics held that the timber trade attracted undesirable men—men who were always on the move and would never be permanent settlers.

These arguments can hardly be said to weigh very heavily against the positive benefits which accrued to the country, in the early years, from the export timber trade.

Today, however—even granting that in the early years the trade was a help to the country—today it can be seen only too plainly what a mad waste of capital resources the timber trade was. (The rape of the forest was accelerated by the change from timber to sawn lumber, and still more by the development of the pulp and paper industry.)

Neither government nor settler nor timber-maker considered what kind of land was being exposed by cutting the forest trees, though it was known that the hardwoods grew on deep land, enriched by the leaf-mould of ages, and that pine was found on light soils unsuitable for agriculture. There are hundreds of square miles of indifferent land on the Laurentian Shield and its margins which ought not to have been cleared of their forest cover.

How simple forest conservation could have been, a hundred years ago, if only men had not believed that the trees were literally inexhaustible. Suppose that the forest had been left to renew itself over a few wide areas—the headwaters of the Grand River, for instance, or the Muskoka Lakes region. Had this been done, the forest wealth of many parts of eastern Canada would today be almost fabulous, and would yield high annual dividends to the State or to private owners. Fire and disease have destroyed much of the forest, perhaps as much as the timber-maker, but that is beside the mark. The timber-maker did not fell a tree to save it from fire—rather he left “slash” in the forest which greatly increased the risk of fire.

There is another side to all this. Those who regret the loss of the forest (whether cut and burned by the settler, or made into timber for export) are prone to give to the trees of a century ago the value which they would have if they were standing today. The fact is rather that they had no great value, a century ago. They were a formidable barrier

between man and the soil by which he has lived since he ceased to be a mere wanderer and hunter.

In any case the great trees have vanished. You may drive a car over all the highways of Ontario, even in the north, without seeing a tree which would make a stick of timber. For the timberman's tree had its deep (or wide-spread) root system, then a tall clear trunk completely free of branches—all its branches and leaves were high in the air. It was the survivor in its own local struggle; it had reached out around its base for moisture, and upwards for sunlight, leaving its competitors dead or stunted, but annually sowing seed for their successors and its own. The giants are no more—their scrubby degenerate "second growth" descendants of today's countryside seem hardly to be of the same race.

The young Scottish diarist MacGregor, already quoted,² has left his impressions of the forest along the Napanee River in 1833. "The trees," he says, grow "to a great height without any branches." He speaks of the forest's "solemn gloom . . . nothing to disturb the silence . . . save the shrill notes of the jay, . . . the rustling of the winds heard at intervals far above among the branches." Some of Bartlett's drawings confirm the diarist's word-picture, they show clearly the dignity of the original forest trees.

It is sad that the trees have gone, yet the story of square timber is an important and interesting part of the history of the early days of eastern Canada. It is the completeness of the "cut" which is to be regretted, not the vigour and resource with which the trade was carried on by so many timber-makers—of whom the Garden Island firm was certainly not the least.

²See p. 114.

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